Winning the Minds in "Hearts and Minds":

A Systems Approach to Information Operations

as part of Counterinsurgency Warfare

A Monograph

by

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Do Information Operations (IO) contribute to success in counterinsurgency campaigns? What IO measures of excellence exist to demonstrate achievement of success in counterinsurgencies? These questions currently challenge U.S. military forces deployed to Operation IRAQI FREEDOM.

This monograph develops a systems framework to better analyze and understand the interactions of IO subsystems as part of counterinsurgency operations. In addition to developing an adaptive systems framework to understand the importance of IO as part of COIN, this document explains the importance of system's aims to identify centers of gravity and feedback loops through existing doctrinal typology of situation-specific considerations. Feedback loops are developed into measures of excellence that allow synchronization and synergy of IO subsystems to be translated through cultural barriers and adjusted as necessary to affect the perception management of all targeted audiences in a counterinsurgency campaign. The historical case study analysis of the Malayan counterinsurgency (1948-1960) is utilized to describe IO as part of COIN systems approach.

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ABSTRACT

WINNING THE MINDS IN "HEARTS AND MINDS":

A SYSTEMS APPROACH TO INFORMATION OPERATIONS AS PART OF

COUNTERINSURGENCY WARFARE

by Major Robert J. Molinari, United States Army, 53 pages.

Do Information Operations (IO) contribute to success in counterinsurgency campaigns? What IO measures of excellence exist to demonstrate achievement of success in counterinsurgencies? These questions currently challenge U.S. military forces deployed to Operation IRAQI FREEDOM.

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CHAPTER ONE

Introduction

Military organizations planning to conduct counterinsurgency (COIN) operations are presented with a substantial challenge.[1] COIN operations require the emphasis and judicious use of all elements of national power.[2] While stability in COIN will always require the use of the military element of national power, the human dimension of the conflict mandates greater emphasis on social, economic and political considerations.[3] Knowledge and employment of information operations (IO) while fighting an insurgency are crucial to the success of operational commanders and compliment traditional military operations.[4]

British forces operating in the 1948-1960 Malayan counterinsurgency provide an excellent example of adaptive learning by military forces in the utilization of IO to defeat an insurgency.[5] COIN lessons from this historical case study are not immediate solutions to the insurgency the U.S. Army is currently fighting in OPERATION IRAQI FREEDOM (*OIF*). However, a systems approach to COIN, utilizing these historical lessons as Measures of Effectiveness (MOEs) provides the operational planner a useful technique to understand and apply IO during COIN operations.[6] This systems approach provides the commander a way to manage the complexity of IO during COIN operations.

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[1] Department of Defense, *JP 1-02 DOD Dictionary of Military and Associated Terms* (Washington, D.C., 12 April 2001), 103. JP 1-02 defines COIN as: "those military, paramilitary, political, economic, psychological and civic actions taken by a government to defeat insurgency."

[2] Department of the Army, *FMI 3.07.22 COIN Operations*, (Washington, D.C.: GPO, 2004), vi.

[3] Andrew Krepinevich, "The War in Iraq: The Nature of Insurgency Warfare." (CSBA. 02 June, 2004. http://www.csbaonline.org/4Publications/Archive/B.20040602.NatofInsurge/B.20040602.NatofInsurge.pdf.), 6.

[4] *FMI 3.07.22 COIN Operations*, 3-15. *JP 1-02*, page 209, defines IO as: "actions taken to affect adversary information and information systems while defending one's own information and information systems."

[5] John Nagl, Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Vietnam and Malaya, 105-107.

[6] Systems theorist Ludwig Bertalanffy defined systems theory as the study of the complex interrelationship between the different elements within a system. JP 3-0, paragraph 6-91, defines MOEs as evaluations of an operation to attain assessments that precede and guide every activity within the operations process and concludes each operation or phase of the operation.

"The strategy of directing psychological blows at an enemy's leadership in a political war is hardly new. It is a fundamental necessity in such warfare."[7] This statement by Air Force Colonel Edward Lansdale reflects his philosophy of utilizing IO to win a COIN campaign. From 1946-1955, Lansdale worked closely with the Philippine Secretary of National Defense Ramon Magsaysay to defeat a communist insurgency. Their strategy utilized perception management, deception, and counter-propaganda techniques. This demonstrates a precedence for the use of IO during COIN operations.

A more contemporary example of the U.S. military using IO is during the 1981-1991 assistance to El Salvador in defeating a communist insurgency.[8] Through judicious use of the IO tenets, as well as reform of El Salvador's military, a small U.S. advisory group leveraged American strengths to quell the insurgents. "Critical terrain in insurgency warfare is the beliefs of the people," stated the military advisory group commander, Colonel John Waghelstein.[9]

This monograph's approach to using IO during COIN operations is a systems theory to apply the components of both concepts into a viable planning framework. This paper has five chapters that will address the topic. After chapter one introduces the problem, chapter two presents COIN theory and doctrine. Chapter two's purpose is to lay the foundation for an understanding of how the principles of COIN fit into a systems approach of IO as part of COIN operations. Chapter three addresses the theory behind IO, applies that theory to an historical case study and concludes with a review of current IO doctrine. Chapter four provides an introduction to the fundamentals of systems theory. Then it combines the discussion of COIN and IO into a systems model that

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[7] Edward G. Lansdale, *In the Midst of Wars: An American's Mission to Southeast Asia*. (New York: Harper and Row, 1972), 375.

[8] Max G. Manwaring and Court Prisk, "A Strategic View of Insurgencies: Insights from El Salvador." *Small Wars and Insurgencies*. Vol. 4. No. 1, (Spring/Summer 1993), 60.The government of El Salvador was fighting a Nicaraguan communist support of the FMLN insurgent group. The United States military employed IO and economic assets in a carrot and stick strategy to reform the El Salvadorian military and refocus the El Salvadorian government on fighting the insurgent's roots while retaining popular support and legitimacy.

[9] John D. Waghelstein. "Military-to-Military Contacts: Personal Observations – the El Salvador Case." Unpublished paper. (Fall 2002), 7.

operational planners may use in planning IO during a COIN campaign.[10] Chapter five presents

recommendations for systems-based MOEs as well as application of the systems methodology in

OIF.

Statement of Problem

The primary research question is: Do information operations contribute to success in

counterinsurgency campaigns? The secondary research question is: What IO MOEs exist to

demonstrate the achievement of success in COIN? The purpose of this paper is to establish

subsystems of both concepts, and link them into a viable planning framework. It should provide

the reader an understanding of the usefulness of a systems approach to contemporary planning

and the importance of IO in defeating insurgencies.

Background

Historically, the United States Army has not performed well in a form of warfare where

nonmilitary instruments of power substantially trump strictly military solutions.[11] The lessons

that the U.S. Army learned from executing COIN operations in Vietnam have been forgotten.[12]

Lessons from Vietnam were rejected in favor of promoting policy and doctrine that emphasize

American strengths in warfare, technology and firepower.[13] In the Contemporary Operating

Environment (COE) an opportunity exists to employ effective IO.

IO recognizes the importance of cognitive and physical data that assists decision makers and

influences perceptions of groups and individuals.[14] Recently, in the COE, it was elevated to a

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[10] *JP 1-02, 59.* A campaign is: "A series of related military operations aimed at accomplishing a strategic or operational objective within given time and space."

[11] Max Boot, *The Savage Wars of Peace,* (New York: Perseus Books, 2002), xx

[12] Russell F. Weigley, The American Way of War: A History of United States Military Strategy and Policy (Bloomington, IN: Indiana University Press,1973), xxii.

[13] Ibid, xxii.

[14] Robert J. Garigue, "The Use of Cognitive Maps to Visualize Belief Systems about Information Warfare." In Winn Schwartau, *Information Warfare*, (New York, New York: Thunder Mouth's Press,

formally recognized element of national power due to globalization and technology.

Consequently, the Department of Defense (DOD) is making an attempt to emphasize IO at the

operational level by issuing the 2003 IO Roadmap.[15]

The Roadmap indicates to Combatant Commanders (COCOMs) that IO cannot be done

quickly or in crisis mode.[16] It is integral to both deliberate and crisis action planning.[17] IO is a

means of channeling perceptions. These directly influence and impact military actions in COIN.

It transforms perception into reality by targeting populations that are choosing to support a

government or an insurgent. This winning of "hearts and minds"[18] is the Center of Gravity

(COG) in a CI conflict and is integral to campaign planning.[19]

The challenge may be to employ comprehensive IO concepts in a systematic method that

wins the support of the population. This support may be measured in a COIN system of systems

using quantifiable MOEs. They allow a gauge to track the progress of IO as part of the COE.

The importance of developing IO to achieve success in both *OIF* and the Global War on

Terrorism (GWOT) is a consideration. As the U.S. Army creates a COIN campaign, it is

undergoing organizational and training challenges that focus almost exclusively on conventional

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1994), 603. Garigue analyzes belief systems as part of a cognitive map. His theory concludes with utilizing cognition with physical data as part of information warfare.

[15] Department of Defense. *IO Roadmap*. Washington, D.C. (30 OCT 2003). The *IO Roadmap* recognizes the shortcomings DOD had with implementing effective IO across the board. Numerous changes were made to existing joint doctrine, organization and training. Most importantly, the document recognized that IO (along with intelligence and space) was not just an enabler to current military forces, but a core capability for future military forces. As such, the Roadmap attempted to push a comprehensive and unified understanding and emphasis on IO out to Combatant Commanders, thus attempting to bridge the gap between strategic and operational IO.

[16] *JP 1-02*, 76. A COCOM is: "A commander in chief of one of the unified or specified combatant commands established by the President." Combatant commands are: "unified or specified commands…(that) typically have geographic of functional responsibilities."

[17] *IO Roadmap*, 1, 12, 23.

[18] Gavin Bulloch, *Military Doctrine and Counterinsurgency: A British Perspective* (Carlisle, PA: Parameters, Summer 1996), 4. General Sir Gerald Templar, High Commissioner and Director of Operations Malaya in 1951 at the height of the insurgency against the British authorities: "The answer lies not in pouring more soldiers into the jungle but rests in the hearts and minds of the Malayan people."

[19] *JP 1-02*, 73. COGs are: "Those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength, or will to fight." *JP 1-02* defines campaign plan as "A plan for a series of related military operations aimed at accomplishing a strategic or operational objective within a given time and space."

operations.[20] Consequently, implementation of other-than-military elements of national power at the operational level are limited due to recent experience and the rejection of historical lessons.[21] Both the IO and COIN challenges reach a nexus in considering how to achieve success in ongoing operations in *OIF*.

The Army is failing to derive all IO lessons learned from its most prolific insurgency experience during Vietnam.[22] These insurgency lessons may establish new MOEs for determining IO effectiveness in *OIF*. These MOEs can be compared to other insurgencies for perspective and to determine relevancy.

Current operations in Iraq find the United States involved in a COIN environment. Culture, the translation of culture, and technology in the hands of civilians and insurgents, and control of information are greater combat multipliers than the conventional use of military force.[23] A detailed study of the control and distribution of information, while executing COIN is useful to current and future United-States-led Combined-Joint Task Force (CJTF) operations.[24]

Fully understanding IO as part of COIN is complex. Full appreciation of the integration of both concepts requires a systems approach. Systems theory recognizes that analyzing separate parts of a problem must consider the interaction or friction when parts are synthesized or combined as part of a system.[25] This systems theory may provide an adequate and effective method of combining MOE considerations of IO during COIN operations.

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[20] John Gordon and Jerry Sullinger, "The Army's Dilemma," *Parameters*, Summer 2004, 33-45.

[21] Conrad C. Crane, *Avoiding Vietnam: The U.S. Army's Response To Defeat In Southeast Asia* (Carlisle, PA: Strategic Studies Institute, September 2002), 18.

[22] Crane, 14-15.

[23] Norman Emery, "Information Operations in Iraq," *Military Review*, (May/June 2004), p. 11.

[24] *JP 1-02*, 79, 238. A CJTF is: "Between two or more forces or agencies of two or more allies…a joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a subunified commander, or an existing joint task force commander."

[25] Ludwig von Bertalanffy, *General Systems Theory*, (New York, NY; George Brasiller, 1969), 31.

Scope and Limitations

This study is a systems approach to IO during COIN operations. The scope of this paper does not attempt to recommend changes to existing IO or COIN doctrine. The intent is to manage the complexity of IO in COIN by developing a systems model.

This paper has four primary limitations. First, it does not cover all aspects or considerations of IO.[26] The systems model allows readers to augment or detract other doctrinal IO elements as necessary. The focus is a subjective analysis of what are considerations in COIN. This should demonstrate the usefulness of a systems approach. Second, as all aspects of IO are not covered, likewise not all military or nonmilitary considerations of COIN are utilized. Chapter two does however elaborate on critical areas for evaluation in a COIN operation. It injects those considerations into the system's model. Third, this monograph does not argue that an effective IO campaign will guarantee success in COIN. However, it recognizes that a flawed, ignored, or unsynchronized IO campaign risks failure. This is due to the population misperceiving the benefits of rejecting the insurgents. This consideration takes on great importance in light of the limitations of military solutions to a social and political conflict. Finally, the study recognizes that solutions to COIN are complex and require a balance of numerous elements of national power (political, economic, military) as well a thorough pre-conflict evaluation of the true nature of the war.[27] This paper provides a method for implementing one portion of the information element of national power at the strategic level and will limit considerations to the operational level.[28]

The next several chapters will explore the importance IO has on COIN operations. Chapter 2 will describe the reasons for an insurgency and then addresses theories relative to how the

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[26] The monograph will not cover all core, supporting or related tasks within information operations as defined by JP 3-13 (page vii) and FM 3-13 (page 1-13). As an example, the monograph will not cover computer network operations, operational security or public affairs.

[27] Carl von Clausewitz, *On War*, (Edited and translated by Michael Howard and Peter Paret, Princeton, New Jersey: Princeton University Press, 1976), 11.

[28] *IO Roadmap*, 3.

military executes COIN operations. COIN is the basis for exploring IO and how IO's cognitive and physical aspects factor into general military operations.

CHAPTER TWO

Insurgency Theory and Doctrine

This chapter will introduce and discuss COIN by initially explaining both insurgency and COIN theory. Section two will trace the genesis of U.S. military COIN doctrine to determine if current doctrine reflects theoretical premises. The final portion of this chapter will combine both a theoretical and doctrinal discussion of COIN. The combination of these sections assists in establishing a proposed model to explain the operational level considerations of COIN.

Insurgent Theory

What is an insurgency? Noted insurgent theorist Bard O'Neill defines insurgency as, "a struggle between a non-ruling group and the ruling authorities in which the non-ruling group consciously use political resources and violence to destroy, reformulate, or sustain the basis of legitimacy of one or more aspects of politics."[29] O'Neill offers that the most important aspect in understanding an insurgency is the nature of the conflict.[30] In essence, identifying the insurgent's goals allows for an understanding of the nature of the conflict. Insurgent goals cover various aspects of change such as anarchy, secession, return to traditional ways, or reform of government.[31] The challenge is to determine the insurgent's aims and to understand that these objectives may transform during the conflict.

Once those goals are determined, identifying the means to achieve those ends allows greater depth of understanding into the severity of the conflict.[32] Insurgents may employ a combination

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[29] Bard O'Neill, Insurgency and Counterinsurgency: Inside Modern Revolutionary Warfare, (Dulles, Virginia: Brassey's Inc., 1990), 13.
[30] Ibid, 27.
[31] Ibid, 22-23.
[32] Ibid, 22-23.

of terrorism, guerilla warfare, and conventional warfare.[33] Understanding the insurgent's ends, ways, and means along with strategic considerations of the environment may lead to a viable COIN strategy.[34] This strategic methodology of conflict is embedded in the Clausewitzian trinity.[35]

To understand war and its complexities, Clausewitz introduced his concept of the trinitarian analysis. He reduces war to three basic dominant elements: violent passion, chance, and reason.[36] These three elements are seen as the people, government, and the military. Contemporary military analysts utilize the Clausewitzian trinity to explain the central focus of an insurgency.

Noted military analyst Michael Handel states that ultimately, the people, military, and government exist in some form or fashion in internal state conflicts. He notes that in Mao Tse Tung's treaty on guerilla warfare the Communist Party represents the government that is in control of the gun (the military) and the military exists in the sea of the population.[37] Mao modified the trinity slightly by placing greater emphasis on one of the three components.

Mao Tse Tung states: "The richest source of power to wage war lies in the masses of the people."[38] He creates a three-phase model that emphasizes the political mobilization of the people and Army to create a protracted popular war. First, organization of the party and preservation of what little combat power exists.[39] Second, transition to combat is initiated when conditions are met that allow progressive expansion of the influence of the party by achieving the

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[33] *JP 1-02, 435.* Terrorism is: "the calculated use of unlawful violence or threat or unlawful violent to inculcate fear; intern to coerce or to intimidate government or societies in the pursuit of goals that are generally political, religious, or ideological." Guerilla warfare is: "military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces." Conventional warfare refers to conflicts between uniformed, standing armies representing nation-states.

[34] Ibid, 21-27. O'Neill divides his strategic framework into six general variables: environment, popular support, organization, unity, external support, and the government response.

[35] Carl von Clausewitz was a 19th century Prussian officer and military theorist whose experiences in the Napoleonic Wars were captured in his seminal book *On War.*

[36] Clausewitz, 89.

[37] Michael I. Handel, Master's of War: Classic Strategic Thought, (London, Portland, Oregon, Frank Cass Publishers, 2001), 401-404.

[38] Mao Tse Tung, *Selected Military Writings of Mao Tse-Tung* (Peking: Foreign Language Press, 1966), 260.

[39] Ibid, 210.

support of the population.[40] These second-phase operations include minor skirmishes against government forces when the guerillas possess an overwhelming advantage. Upon completion of assured victory, the guerilla quickly fades into the population to swarm at a later time.[41] During the third and final phase, the guerilla forces transition into conventional military operations against government forces.[42] Mao's model emphasizes that the element of time is on the insurgent's side in order to build resources and support.[43] There is no rush to meet the government forces in fixed battle. The primary emphasis is to live amongst the population, convince the people that the guerillas offer a better alternative, and win their trust and support. In summary, the guerillas must exist like "fish" in the people's "water."[44]

Utilizing Mao's theory, an insurgency is a less overt, classic military struggle. It is more of a social, political and economic struggle for the support of the indigenous population over a prolonged period. Mao may argue that an insurgency creates an even closer link to the Clausewitzian trinity – people, military and government. The people being the greatest source of power.

This section provided an explanation of the foundation and nature of an insurgency in order to determine the important parts of an insurgency as a system. In the next three subsections, two strategies and a contemporary interpretation of those strategies is reviewed. The objective is to explain and understand an insurgency as a system to determine how IO can affect the parts of that system.

Insurgent Strategy

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[40] Ibid, 210.
[41] Ibid, 211.
[42] Ibid, 211.
[43] Ibid, 211.
[44] Ibid, 210-211.

Basic causes of insurgencies include: population pressures for government change, a deep perception of inequality, or unresolved religious or ethnic problems.[45] Other causes may include a weak national administration, lack of political infrastructure, disenfranchisement, corruption and mismanagement, difficult civil-military relationships, the mal-distribution of resources, or social divisions.[46] A discontent elite that can organize antigovernment movements and some measure of popular support may be the preconditions of an insurgent movement.[47] Additionally, insurgencies must have charismatic leaders, attainable goals, motivating ideology, and access to internal or external resources.[48] The importance of recognizing insurgent characteristics allows an understanding of the role of leadership and popular support in order to counter these insurgencies.

Edward Lansdale, an expert on U.S. COIN in the Philippines and Vietnam, states, "An insurgency depends upon its leadership, about which there is always more to learn."[49] Another authority on CI strategy, Julian Paget, cites the requirements for successful insurgencies include: support of the local population, bases of supply, mobility within the country, supplies and information, along with the will to win.[50]

By understanding these major considerations within an insurgency, it enables the building of a COIN framework. This framework can assist in comprehending COIN as a system.

Counterinsurgent Strategy

Appreciation of the nonmilitary elements of an insurgency lead to contemporary interpretations. These include the adaptation of a military organization to nonmilitary solutions.

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[45] David Galula. *Counter-Insurgency Warfare, Theory and Practice*, (New York: Frederick A. Praeger, 1964), 36-39.
[46] Bard E. O'Neill. "Insurgency: A Framework for Analysis," in American Defense Policy, edited by John F. Endicott and Roy W. Stafford, Jr., (Baltimore and London: The Johns Hopkins University Press, 1977), 164-172.
[47] Ibid, 164-172.
[48] Edward G. Lansdale, *In the Midst of Wars: An American's Mission to Southeast Asia* (New York: Harper and Row, 1972), 376.
[49] Ibid, 376.
[50] Julian Paget, *Counter-Insurgency Operations*, (New York: Walker and Company, 1967), 156-157.

A veteran of the French COIN struggle in Algeria during the 1950's, Roger Trinquier reiterates the fact that the sine qua non of victory in modern insurgent warfare is the population's unconditional support.[51] Trinquier recommends the use of every available means, including terrorism, to secure that support. According to Trinquier, counterinsurgent's blind use of military methods result in the military being a pile driver attempting to crush a fly and persistently continuing the same obtuse attempts.[52] Control of the population is the first priority Trinquier recommends.

A well-developed intelligence network is needed to achieve this control of the population. COIN strategy hinges on methodical and gradual control of territory. Control of the non-physical element of the environment is more important than control of factor space.[53]   As such, Trinquier draws the logical conclusion that the critical importance of propaganda to make war and its aim must be clearly known to the populace.[54]

The previous two subsections reviewed basic considerations in insurgent and counterinsurgent strategies. This establishes a fundamental understanding for how contemporary authors have described insurgency as a system's model. The next section will review a contemporary, relevant interpretation of these concepts in order to build the COIN framework. This enables a COIN system's methodology to be built using IO as part of COIN operations.

Contemporary Interpretation

John Nagl, a U.S. Army officer recently deployed to *OIF* states, "Undue focus on military action clouds the key political realities, which can result in a military-dominated campaign plan that misses the real focus of an insurgency."[55] It recommends two complementary and simultaneous methods for a COIN. First, it provides a direct method of annihilation that targets

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[51] Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency,* (New York: Praeger, 1964), 34.
[52] Ibid, 38.
[53] Ibid, 39.
[54] Ibid, 57.
[55] Nagl, 27.

the insurgency's armed forces. Second, it offers an indirect method to turn the loyalty of the people toward the government by targeting their will.[56]

Nagl utilizes British CI veteran Robert Thompson's five principles of COIN.[57] The government must function in accordance with the law. It must link all actions and operations as part of a strategic plan.[58] Priority should be given to the government's efforts to defeat political subversion. This will attain legitimacy prior to the defeat of guerilla forces. Once this transition is made to defeat the guerillas, the government must methodically secure its bases in order to control territory.[59]

Nagl builds on Thompson's five principles by creating a series of questions to evaluate COIN doctrine. First, in defining victory, does the doctrine achieve national goals in a conflict? Next, in quantifying objectives, does the Army contribute to the setting of realistic national goals in the conflict? Third, in establishing unity of command, does the military accept subordination to political objectives? Fourth, does the military use the minimum amount of force necessary to accomplish its mission?   And finally, does the military structure itself in an appropriate manner to deal with the threat at hand?[60] These facilitate the understanding of doctrinal considerations when reviewing COIN in the COE.

In the COE, liberal democracies are challenged with this form of warfare. Time is the primary challenge given that the nature of insurgencies is a prolonged struggle.[61] This prolonged struggle includes few, overt discernable victories that present signs of progress and secure homefront support. The second difficulty is that the nature of the conflict inevitably results in combat close to the populace.[62] This generates civilian casualties and thereby risks the loss of

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[56] Ibid, 26.
[57] Robert F. Thompson, Defeating Communist Insurgency: Experiences from Malaya and Vietnam, (London: Chatto & Windus, 1972), 50-60.
[58] Ibid, 50-52.
[59] Ibid, 50-60.
[60] Nagl, 30.
[61] Sam C. Sarkesian. *Unconventional Conflicts in a New Security Era: Lessons from Malaya and Vietnam*, (Westport, Connecticut: Greenwood Press, 1993), 14-17.
[62] Ibid, 14-17.

support due to a fear of further human suffering. As the most recent British COIN manual

advocates, a "gloves off" method will not work for a liberal democracy.[63]

Thus far this paper lays out an identification of considerations within COIN. Next, a brief

doctrinal review will balance insurgency theory with military study. Both of these concepts will

be combined at the end of this chapter to develop a COIN model for use in a systems analysis.

Doctrine

The U.S. military is beginning to formalize a uniformed understanding of how the U.S.

operates during insurgency operations.[64] Four primary manuals trace the emergence of COIN

doctrine. These will be discussed chronologically: the Marine Corps *Small Wars Manual (SWM)*;

Joint Publication (JP) 3.07, *Military Operations Other than War (MOOTW); JP 3-07.1, *Joint

Tactics, Techniques and Procedures for Foreign Internal Defense (FID)*; and FMI (Field Manual-

Interim) 3-07.22, *Counterinsurgency Operations*. These four documents trace late institutional

acceptance and a formal encapsulation of COIN.

<u>Marine Doctrine</u>

SWM is the first and most substantial contribution to U.S. military COIN doctrine.[65] The

manual is a pre-World War II document written largely at the tactical level. It focuses on

capturing the Marine's substantial experience in small wars.[66] It defines small wars as:

"Operations undertaken under executive authority, wherein military force is combined with

diplomatic pressure in the internal or external affairs of another state whose government is

unstable, inadequate, or unsatisfactory for the preservation of life and of such interests as are

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[63] Training Doctrine Retrieval Centre, British Army Doctrine-11291, Staff College Notes on Counterinsurgency, (Camberly, United Kingdom; British Army Staff College, 1994), 26.

[64] Robert R. Tomes, "Relearning Counterinsurgency Warfare," *Parameters*. (Spring 2004), 16-28.

[65] Nagl, 37, 47-48.

[66] Greg Jaffe. "For Guidance in Iraq, Marines Rediscover a 1940s Manual; Small-War Secrets Include: Tips on Nation Building and the Care of Pack Mules," *Wall Street Journal*, (April 8,2004), A1.

determined by the foreign policy of our Nation."[67] Its major contribution to IO is an early

recognition to gain a psychological advantage over an insurgent enemy as well as the importance

of propaganda in dealing with native populations.[68] One of the most important contributions of

the *SWM* to modern concepts of COIN is the emphasis on an indirect approach with great

emphasis on non-military solutions.

The *SWM* briefly discusses strategic considerations as well as interagency operations.

However, the *SWM* does emphasize the importance of other than military solutions within small

wars:

> "This difficulty of immediate control and personal influence is even more
> pronounced and important in small wars, on account of the decentralized nature
> of these operations. This fact is further emphasized because in the small wars we
> are dealing not only with our own forces, but also with the civil population,
> which frequently contains elements of doubtful or antagonistic sentiments. The
> very nature of our own policy and attitude toward the opposing forces and
> normal contacts with them enable the personnel of our Force to secure material
> advantages through the knowledge and application of psychological principles.
> It is of primary importance that the fullest benefit be derived from the
> psychological aspects of the situation. That implies a serious study of the people,
> their racial, political, religious, and mental development."[69]

Marine doctrine is important to the development of IO as part of COIN operations because IO

lessons learned at the lower end of intensity were largely left forgotten until 1995 and the

publication of JP 3-07. This is due to a focus by the military on conventional and nuclear conflict

during the Cold War Years.

Joint Doctrine

JP 3-07 discusses strategic considerations of MOOTW. It briefly discusses COIN

considerations and groups their activities under nation assistance programs. With regard to IO, JP

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[67] Department of the Navy, *Small Wars Manual*, (Washington D.C., United States Government
Printing Office, 1940), 1.
[68] Ibid, 13. SWM states: "Strategy should attempt to gain psychological ascendancy over the
outlaw or insurgent element prior to hostilities." The manual also made early recognition of the importance
of the frequency, repetition, and last impression of propaganda both at home and in the native country
(SWM, 28).
[69] Small Wars Manual, 16.

3-07 focuses limited attention on psychological operations. It highlights the importance of U.S. control of operational mediums of mass communication.[70] JP 3-07's real contribution to COIN theory is by listing the operational principles of MOOTW: objective, unity of effort, security, restraint, perseverance, and legitimacy.[71] As the post-Cold War COE drew greater emphasis on small wars, U.S. military doctrine provided greater emphasis on the details of COIN within new publications.

A year after the publication of JP 3-07, DOD released JP 3-07.1 which provides greater strategic detail to Foreign Internal Defense (FID).[72] The publication fails to provide the same emphasis on IO that the *SWM* provided. This may explain the challenge the U.S. military currently faces in integration of IO as part of COIN in the COE.[73] It does, however, relate PSYOP to the informational element, but does not discuss the critical considerations previous IO theorists have mentioned such as center of gravity, propaganda, access to media outlets, etc.[74] After COIN operations occurred in *OIF*, the Army developed FMI 3-07.22, *Counterinsurgency Operations.*

Army Doctrine

FMI 3-07.22, *Counterinsurgency Operations,* is a comprehensive manual on COIN warfare for both conventional and unconventional forces.[75] The manual provides an entire section to the discussion of IO during COIN operations. Analyzing IO from the threat and

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[70] Department of Defense, *JP 3-07 Joint Doctrine for Military Operations Other than War*. (Washington D.C., 1995), III-9, IV-6.

[71] Perseverance is not one of Thompson's basic principles, but on this matter he states, "By preparing for the long haul, the government may achieve victory quicker than expected. By seeking quick military victories in insurgent controlled areas, it will certainly get a long haul for which neither it nor the people may be prepared." Thompson, 58.

[72] *JP 1-02*, 172. FID is the: "Participation by civilian and military agencies of a government in any of the action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency."

[73] *JP 3-07.1* devotes only two paragraphs to discussing the informational element of national power and psychological operations in FID. It fails to mention the importance of previous doctrinal efforts (SWM). It also does not capture the importance of IO as part of FID.

[74] Department of Defense, JP 3.07.1 *Joint Tactics, Techniques and Procedures for Foreign Internal Defense (FID),* (Washington D.C., 16 June 1996), IV-15.

[75] FM 31-20-3, Foreign Internal Defense: Tactics Techniques and Procedures for Special Forces was published in 1994 but focused solely on the Special Operations activities.

friendly perspectives, the manual incorporates much of previous IO theory and addresses the elements, importance, and considerations of IO in COIN.[76]

U.S. military doctrine for COIN is evolving based on historical importance. The Marine Corps developed the *SWM* early to codify lessons learned in the numerous small wars they have executed during the 19th and 20th centuries. Strategic doctrine for COIN developed based on post-Cold War considerations, while U.S. operations in *OIF* are resulting in doctrine addressing the current threat faced by conventional forces. Though these documents vary in degree of detail relative to COIN and IO, they all accurately capture important theoretical considerations by classical and contemporary insurgent theorists.

The theoretical and doctrinal elements of COIN reviewed in the previous sections are combined in the next section. This chapter summary develops a COIN framework integral to a systems approach to IO as part of COIN operations.

Summary

Building on the previous discussion of insurgent theorists and the doctrinal review, figure 1 is a summary of a COIN model. COIN strategy starts with an understanding of the insurgent's goals. As O'Neill argues, the forms of warfare and insurgent goals assist the counterinsurgent in determining the insurgent's strategy.[77] The insurgent's strategy is understood through the identification of their ways and means. This includes an appreciation for the environment both sides operate within, as well as intelligence analysis to evaluate insurgent organization and unity.[78] Within a ways and means analysis, determination may be made of what support the insurgent receives. Finally, and most important, the previous considerations may be built into an evaluation process of how the insurgent receives information.
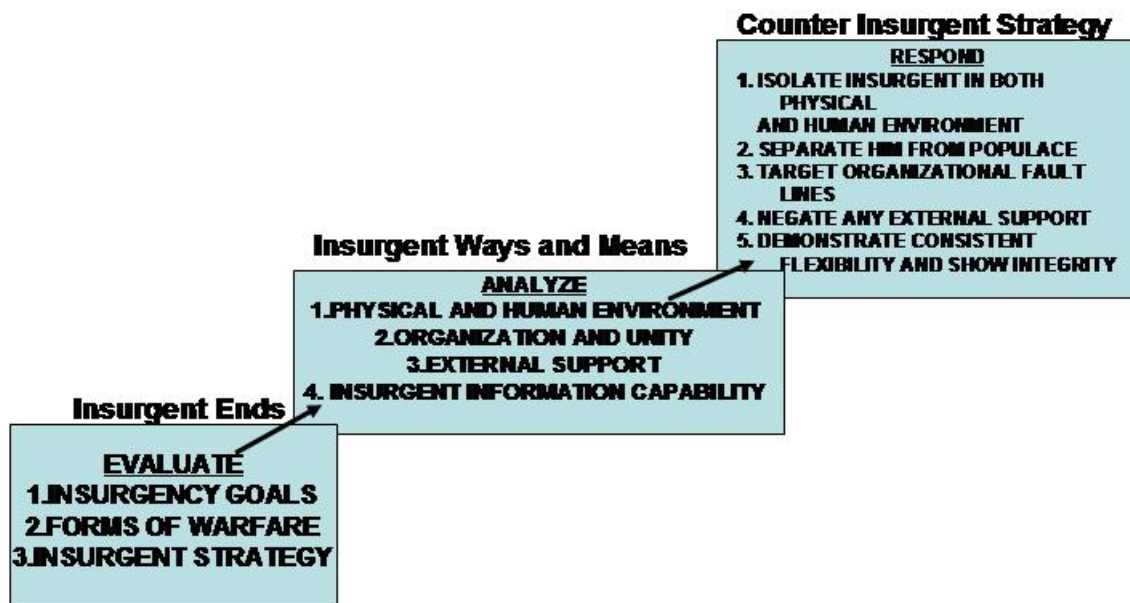
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[76] FMI 3.07.22 COIN Operations, 3-14 to 3-19.
[77] O'Neill, 21.
[78] Ibid, 22.

An information analysis is the cornerstone to developing any COIN strategy.[79] COIN

strategy must be conducted on mutually reinforcing lines of operations that primarily isolate the

insurgent in both physical and human environments.[80]

Both Trinquier and Thompson offer isolation of the insurgent equates to insurgent separation

from the populace. Fault lines within the insurgency can be targeted and all external support can

be denied to cause this separation. COIN strategy should rest on both flexibility and truth in

dealing with the populace.

Counter Insurgent Strategy
RESPOND
1. ISOLATE INSURGENT IN BOTH
   PHYSICAL
   AND HUMAN ENVIRONMENT
2. SEPARATE HIM FROM POPULACE
3. TARGET ORGANIZATIONAL FAULT
   LINES
4. NEGATE ANY EXTERNAL SUPPORT
5. DEMONSTRATE CONSISTENT
   FLEXIBILITY AND SHOW INTEGRITY

Insurgent Ways and Means
ANALYZE
1. PHYSICAL AND HUMAN ENVIRONMENT
2. ORGANIZATION AND UNITY
3. EXTERNAL SUPPORT
4. INSURGENT INFORMATION CAPABILITY

Insurgent Ends
EVALUATE
1. INSURGENCY GOALS
2. FORMS OF WARFARE
3. INSURGENT STRATEGY

Figure 1. Counterinsurgent Framework [81]

During the last chapter, this paper addressed three main points. The first section addressed

[79] Ibid, 22.

[80] *JP 1-02*, 252. Lines of operations are, "Lines that define the directional orientation of the force in time and space in relation to the enemy. They connect the force with its base of operations and its objectives."

[81] Figure 1 is offered as a summary of O'Neill's counterinsurgency framework combined with classical and contemporary theorists and current doctrine. It is developed by the author to clearly articulate the ideas.

pertinent classical and contemporary theory on insurgency warfare. Second, the chapter provided a doctrinal review to balance against theory. Finally, this chapter combined both theory and doctrine to create a COIN framework.

In the next chapter an introduction to IO theory and IO doctrine will provide a foundation for the other part of this study relative to systems theory. Chapter 4 will then lay the foundation for systems theory as a result of the groundwork set in chapters two and three. Chapter 5 will discuss conclusions and recommendations.

CHAPTER THREE

Information Operations Theory and Doctrine

At this point the reader should understand that the discussion is transitioning from COIN to IO. This chapter will present four concepts in order to explain IO. First, this chapter will introduce IO theorist Edward Waltz concept of IO in military operations.[82] Second, Waltz's IO concept is applied to an historical case study to explain its application. Third, IO doctrine is compared to Waltz's concept to build the final section of the chapter, an IO model. Lastly, in Chapter 4, these IO thoughts are combined with chapter two's COIN framework to establish a systems approach to IO during COIN operations.

Introduction to IO Development

IO is a relatively new term for an old concept. Historical documents refer to IO in different facets: psychological operations, propaganda, media relations, deception, etc. Versions of IO even existed during Biblical times. Soloman mentions the importance of knowledge, guidance and advisors as essential to victory in combat.[83] Sun Tzu wrote of the importance of information to friendly decision making, to communicate to opponents, and being part of the supreme form of

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[82] Edward Waltz provides a simple operational model of IO to explain the concept in a easy to understand form. He is a DOD contractor who has worked closely with the U.S. Defense Science Board and National Defense University on theory and concepts behind information warfare since 1995.
[83] Proverbs 24:5-6.

warfare.[84]   An example of IO in contemporary asymmetric warfare was by Somali Warlord

Mohamed Farrah Aideed. He advocated utilization and control of the agenda and attraction of

media coverage to counter being overmatched by U.S. military and economic power.[85]   This

transition of old concepts into the contemporary environment is based on unparalleled

technological developments.

   The advent of computers and mega-data processing is creating an unimagined capability to

store and disseminate reams of information data. This technology revolution ensures, according

to theorist Leigh Armistead, that IO is the most readily transferable element of national power.[86]

IO assists in integrating the other elements of national power into military operations.[87]   It

influences adversaries by affecting their perception of the strategic environment.[88]   Integration of

non-military elements of national power and targeting enemy perceptions are important

considerations in a form of warfare where ideological considerations are crucial.

   IO is rising to the forefront of contemporary military operations because of technology. The

increasing reliance on technology to "observe" and "orient" on battlefield activities gives

credibility to attacks on the information and perception domain.[89]   Technology assists in

measuring, delivering and controlling an increasingly complex battle space. Greater reliance on

technology also creates greater vulnerability to "attacks that do not require physical force

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[84] Sun Tzu, *The Art of War*, translated by Samuel B. Griffith; New York: Oxford University Press, 63-76. "In respect of the military method, we have, firstly measurement; secondly, estimation of quantify; thirdly, calculation; fourthly, balancing of chances; fifthly, victory." "All warfare is based on deception [of the enemy]." "In the practical art of war, the best thing is to take the enemy's country whole and intact…Hence to fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting."

[85] Martin C. Libicki, *What is Information Warfare?* (Washington, D.C. U.S. Government Printing Office), 36.

[86] Leigh Armistead, *Information Operations: Warfare and the Hard Reality of Soft Power*, (Washington, D.C.: Brassey's Incorporated, 2004), 21.

[87] JP 3-13, I-3.

[88] Ibid, 1-3.

[89] Edward Waltz, *Information Warfare: Principles and Operations*. Norwood, Massachusetts: Artech House), 8.

alone."[90] While not necessarily changing the human element of war, IO directly affects how

political and military leaders perceive the world, develop beliefs, and make decisions.[91]

Information warfare has expanded the battlefield beyond the traditional military realm. New

targets include the civil, commercial, and private infrastructure of a nation by targeting mass

beliefs and perceptions.[92] Important in this technological change from traditional warfare to

informational warfare is how doctrine unifies U.S. military understanding of warfare. The

complexity of IO as part of military operations is simplified and explained best through Edward

Waltz's IO concept model.

The next subsection will introduce Waltz's IO concept and apply it to an historical case

study. A brief doctrinal review of IO will balance this theoretical perspective. Finally, this

chapter will conclude by combining IO theory and doctrine into an IO model for use in the

chapter 4 Systems Analysis of IO during COIN operations.

Waltz IO Theory

IO impacts military operations. Waltz successfully captures and develops a concept of IO in

his 1998 *Information Warfare: Principles and Operations*. He initiates his introduction of an IO

model of warfare by portraying the importance of information to affect the actions of an enemy.[93]

Figure 2 is a model that explains Waltz's basic IO concept.[94] To simplify its application in an

example, counterinsurgents will be employed as the aggressor and insurgents as the defender.

CI military force's objectives are to influence or coerce the actions of the insurgents. To

affect or force the opposition to act in a desired manner is their ultimate objective. The CI has the

option of using force or any other means to impact the insurgent's decision making.[95] Waltz

describes three events that influence the insurgent's decisions and their resulting actions. First is

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[90] Ibid, 8.
[91] Ibid, 9.
[92] Ibid, 6.
[93] Ibid, 4-10.
[94] Ibid, 6.
[95] Ibid, 4.

the consideration of the capacity of the insurgent to act.[96] The ability to act exists within the

insurgent's center of gravity which is support of the population.[97] Popular support provides the

insurgent the required source of power, physical strength, freedom of action, or will to fight. The

second event is the will of the insurgent to act.[98] This is a human factor that is difficult to

measure or directly influence. Confronted with certain defeat, the insurgent may still summon the

will to continue resistance.[99] The final event is the insurgent's perceptions.[100] Perception is a

measurement of understanding of the situation based on factors such as accuracy, completeness,

confidence and timeliness. The insurgent's decisions are based on his perceptions of the situation

and the capacity to act.[101]

   These three factors provide CI forces both direct and indirect alternatives for coercing or

influencing insurgent forces to act. First, CI forces can physically attack the insurgent forces by

creating direct limitations on their capacity to act, as well as indirectly affecting their will to

act.[102] CI forces can influence insurgent perceptions about the situation through both direct

physical attacks and indirectly through attacks on command and control and intelligence

gathering assets.[103] The insurgent's will can not be directly attacked or controlled, however their

capacity and perceptions provides a means of access to affect their will.[104]

   By incorporating the three factors and two methods of attack, figure 2 illustrates the means

available to CI forces. The means by which CI forces influence the capacity of insurgents and the

flow of information that allows insurgents to perceive the situation. The model details the

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[96] Ibid, 5.
[97] Ibid, 4.
[98] Ibid, 5.
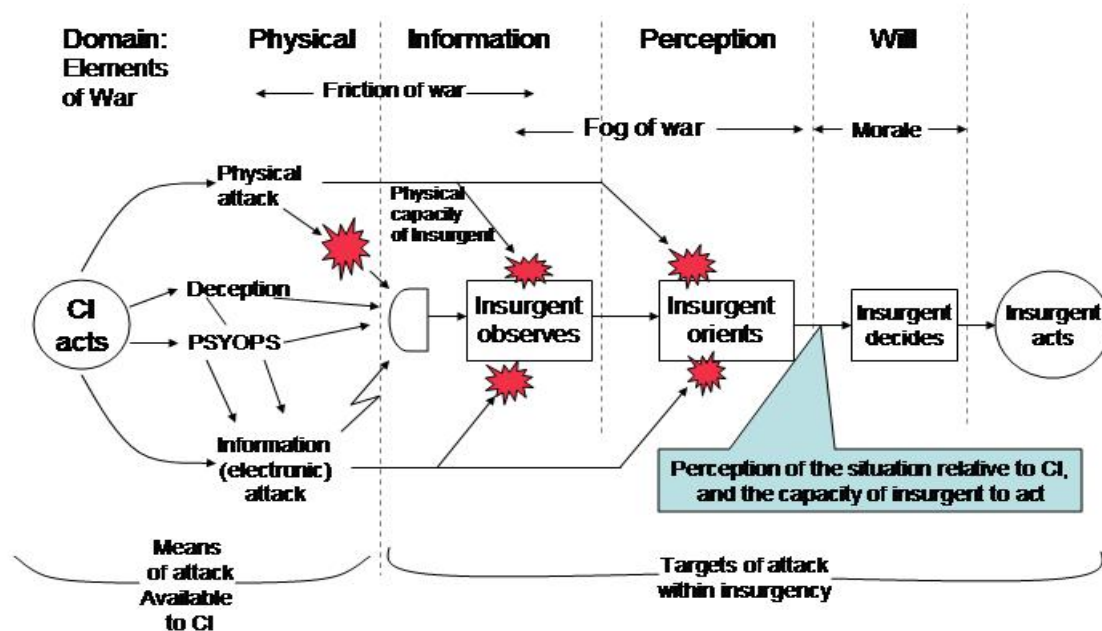[99] Ibid, 4.
[100] Ibid, 5.
[101] Ibid., 4-5.
[102] Ibid, 5.
[103] Ibid, 4.
[104] Ibid., 5.

counter insurgent's flow of information across four domains (physical, information, perception and will) that affect the decisions and actions of the insurgents.[105]

Figure 2.
Modification of Waltz Basic Information Processes Model in a Counterinsurgency [106]

The insurgent's capacity to act exists within the physical domain. This includes quantifiable factors such as personnel, military resources, communications equipment, and transportation resources.[107] The information domain is where the insurgent receives input of the situation, observes CI operations, and tracks status of insurgent forces.[108] The third domain, perception, combines all of the insurgent's observations to establish an orientation of the situation.[109] The perception domain is where the insurgent identifies CI objectives, will and the capacity to act. It is also the domain where the insurgent determines viable reactions to CI attacks.[110] In the

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[105] Ibid, 6.
[106] Ibid, 6. Figure 2 is the author's alteration of Waltz's concept. Waltz utilizes "Actor A" and "Actor B" to develop his concept. The author substitutes counterinsurgent for Actor A and insurgent for Actor B.
[107] Ibid, 5.
[108] Ibid, 5.
[109] Ibid, 6.
[110] Ibid, 5.

perception domain, electronic processing and visualization establish the human mind as the central element.[111] The degree of belief and comprehension influence the final dimension of will and human choice. The insurgent applies judgment in this domain coupled with experience and predisposition. The heart of the insurgent leader characterizes the central element in will.[112]

Given the domains that both sides operate in, the counterinsurgent now possesses four options to impact the insurgent. The first is a physical attack. It attacks the insurgent capacity to act.[113] This includes physical isolation of the insurgent from outside resources, direct attack on insurgent cells, destruction of insurgent transportation or control nodes, etc.[114] This is the basic means of attrition warfare and is designed to destroy or disable the insurgent's capability to observe or orient.[115] The second option is deception.[116] CI deception operations desire to surprise and compel the insurgent to take ineffective or vulnerable actions. Thirdly, CI psychological attacks target the insurgent's perception of the conflict.[117] The overall aim of PSYOP is the disorientation of the insurgent while influencing correct orientation of the populace.[118] The final option is information attack which destroys the electronic observation and orientation of the insurgent.[119] Information attacks may deny the insurgent access to media outlets and limit their ability to gather an understanding of the environment as well as denying them the ability to disseminate messages to the populace.[120]

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[111] Ibid, 6.

[112] Ibid., 5-6.

[113] Ibid, 6.

[114] Ibid, 6.

[115] *JP 1-02*, 41. Attrition is: "The reduction of the effectiveness of a force caused by loss of personnel and material."

[116] *JP 1-02*, 116. Deception is: " Those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce the enemy to react in a manner prejudicial to the enemy's interests."

[117] Waltz, 7.

[118] *JP 1-02,* 350. PSYOP are: "Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior or foreign governments, organizations, groups, and individuals."

[119] Waltz, 7.

[120] Ibid., 7.

The Malayan Insurgency, 1948-1960, is an historical case study on IO that depicts Waltz model. This case study provides a detailed explanation of how British counterinsurgency forces correctly applied IO concepts to defeat the Malayan Communist Party insurgency.

Historical Study

Application of IO Theory to Malayan Emergency, 1948-1952

The Malayan Emergency had been simmering through the Japanese occupation of Malaysia in WWII based on ethnic fault lines.[121] As the colonial government of Malaysia, the British attempted to establish a Malayan Union in 1946 where the ethnic sides (with a Malaysian majority and Chinese and Indian minorities) received equal representation.[122] The British faced a double-binded problem in Malaysia which was only realized in 1951 by the Colonial Secretary, Oliver Lyttleton, who stated, "You cannot win the war without the help of the population, and you cannot get the support of the population without at least beginning to win the war."[123]

The British initiated an inauspicious COIN campaign in 1948. Handicapped by organizational reservations and mostly WW II conventional experiences, the British quickly demonstrated adaptive organizational techniques that relied on more of a political solution than a military one. This is known as the Briggs plan.[124]

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[121] Samuel Huntington, *The Clash of Civilizations*, (New York: Simon and Schuster, 1996), 252. Huntington defines fault lines as: "communal conflicts between stares or groups from different civilizations" in which the struggle is over both control of people and territory.

[122] Richard L. Clutterbuck, *The Long, Long War: Counterinsurgency in Malaya and Vietnam*, (New York: Praeger, 1966), 5-6. Violence broke out in June 1948 when the MCP elected to conduct an insurgency through a Mao type insurgent model to gain control of the country. The British declared a state of emergency.

[123] A.J. Stockwell, ed., British Documents on the End of Empire: Malaya. Volume II, (London: HMSO, 1995), 322.

[124] Nagl, 105-107. John Nagl's thesis utilized organizational learned theory to prove how the British in Malaysia overcame institutional friction to win the insurgency whereas the U.S. Army failed to institutionally adapt and thus lost the Vietnam conflict.

The 1950 Briggs plan focused on separating the people from the insurgents.[125] It attempted to turn the COIN problem over to, and involve as much of the Malayan population as possible through the newly created Malayan Constabulary Corps.[126] The Briggs plan was a commitment to a long-term victory with important components of IO as its integral parts.

The Briggs plan had four inherent strategies. First, dominate the populated areas and build a feeling of complete security in them, with the object of obtaining a steady and increasing flow of information from all sources. Second, break up the Min Yuen within the populated areas. Third, isolate the bandits from their food and information supply organization in the populated areas. Finally, destroy the bandits by forcing them to attack CI forces on their own ground.[127]

In 1952, General Sir Gerald Templer was appointed High Commissioner of Malaya. In addition to invigorating a new spirit in the CI effort as well as substantial operational and organizational innovations, Templer focused on IO to ensure the right message was sent to win the "hearts and minds" of the population.[128] CI forces had already implemented physical attacks on Malayan Communist Party (MCP) cells to capture or destroy personnel, supplies, communication, and transportation resources.[129] Within the CI headquarters, the Information Services department organized a Psychological Warfare section. The "Psywar" section initiated an effective campaign to directly target MCP information sources as well as indirectly influence insurgent perception.[130] The PSYOP campaign included leaflets, government films, ground and air loudspeakers, Chinese vernacular press, and playlets. These activities were all conducted by

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[125] Clutterbuck, 57. Lieutenant General Sir Harold Briggs, a retired Army officer, was appointed the British civilian Direct or Operations for Malaya in 1950. His experience in jungle warfare in World War II assisted in his creation of a plan for victory that won the war in Malaya and has been copied in other countries facing emergencies.

[126] Sarkesian, 71, 74.

[127] Ibid, 71, 74.

[128] Nagl, 93-95.

[129] Clutterbuck, 43. CI forces in Malaya consisted of both British and Malayan forces operating under British leadership.

[130] Wing Commander A.F. Derry, *Emergency in Malaya: The Psychological Dimension*, (Latimer, England: National Defence College, 1982.), 12.

former Chinese insurgents and targeted on the MCP insurgents.[131] The success of the IO

campaign was demonstrated at the end of a six-month area denial operations. Voice aircraft led

10 insurgents to surrender, of whom three agreed to work for "Psywar" and persuaded the other

twelve members of their branch to surrender.[132]

The information services had two tasks. First, information work targeted both the insurgents

(through PSYOP) and the public (hearts and minds). Second, government forces offered

insurgents a surrender policy to entice them to turn upon their friends.[133] Propaganda persuaded

the target audience that the government is both legitimate and fair.[134] Early establishment and

maintenance of government credibility to maintain legitimacy countered the majority of insurgent

propaganda.[135] Regular means of informing the populace (magazines, posters, radio) captured

their attention through entertainment, but also conveyed a message and useful information that

forced them to think and then act (or not act and deny insurgent support). Simultaneously, CI

forces took judicious opportunities to limit all insurgent access to media outlets.[136]

British leadership realized early in Malaysia that simple solutions existed for a conventional

force to directly influence the MCP's capacity to act.[137] However, the CI forces took the time to

develop effective operations that directly target the will of the MCP to act and, thus, indirectly

influence the perception of the insurgents. Perception management in Malaya included ensuring

the message to the enemy emphasized humane and just treatment upon surrender. Additionally,

the most effective way to target the will and perception is through message filtering through

former insurgents.[138] The British synergistically coordinated physical attacks, deception and

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[131] Ibid, 12.
[132] Wing Commander Charles O'Reilly, Imperial War Museum (IWM) Department of Sound Records (DSR) 10121/3, 1988), 8.
[133] Thompson, 90-92.
[134] Ibid, 94.
[135] Ibid, 94.
[136] Sir Robert Thompson, Defeating Communist Insurgency: The Lessons of Malaya and Vietnam. (New York: Praeger, 1966), 47.
[137] Nagl, 95.
[138] Clutterbuck, 102-107.

PSYOPs to directly and indirectly impact the MCP's capacity to act, and their will to act along

with perception.

Figure 3 summarizes the British IO campaign during the Malayan Emergency. This is based

on Waltz's model.[139]

ATTACK OPTIONS	IMPLEMENTED	METHODS	INSURGENT TARGETS
PHYSICAL ATTACK	YES		CAPACITY TO ACT
DECEPTION	YES	DIRECT	WILL TO ACT
PSYOP	YES	INDIRECT	PERCEPTION
INFORMATION ATTACK	NO		

Figure 3. Use of Information Operations in Malaya

The previous sections establish a basic IO concept while applying an historical case study.

Their intent is to clearly articulate the basis for a systems approach to IO. The next section will

build on that basis and introduce current IO doctrine to provide all the necessary tools for viewing

IO as a system. IO theory and doctrine are combined at the end of this chapter into a process that

can be linked to the previously developed COIN framework in Chapter 2. This sets the

foundation of a systems model in Chapter 4.

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[139] Waltz's framework highlights the important part physical attack, deception, PYSOP, and
information attack make in IO (see figure 2). Figure 3 is the author's summary of Waltz's concept applied
to the Malayan Emergency.
[140] Figure 3 is the author's summary of IO Waltz's IO concept applied to the Malayan Emergency.

Information Operations Doctrine

The first subsections of IO doctrine will introduce joint doctrine. The next section addresses the environment of the battlespace which is quantified within the Information Environment (IE). The third section, information superiority, discusses how doctrine plans to maintain and integrate information superiority within the IE. The final section discusses the doctrinal elements of IO and how they are linked back to Waltz's IO concept.

Joint Doctrine

Joint IO doctrine compliments Waltz fundamentals of IO theory. It divides IO into offensive and defensive operations. Offensive and defensive IO address the physical and information arenas. The physical arena involves human activity in observable actions or tangible activities such as automation.[141] It includes operations such as leaflet droppings on enemy formations to coerce them to surrender.

The information arena is the minds of humans, decision making, and information processing.[142] This is a cognitive environment that is not so easily quantifiable or observed. It deals with psychology, human perceptions, and influences.[143] Attempting to win popular support from civilian masses and denying enemy information on friendly operations are examples of the cognitive environment.

These arenas are both separate and complementary. A practical example of combining both the physical and cognitive aspects of IO is seen in the advertising industry. Advertisers stimulate and entice human actions to generate an activity and profit in the form of new customers.

Greater emphasis in this section will be made on the human perception elements of information doctrine. The importance of this aspect of IO is readily seen daily in the news media. Media outlets use synthesis of data and human events to present current and important

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[141] Department of Defense, *JP 3-13 Joint Doctrine for Information Operations,* (Washington, D.C.: GPO, 1998), 1-10.
[142] Ibid, II-1.
[143] Ibid, II-1.

information. This elicits human response, reaction, and attentiveness.[144] The same corporate

advertisement that combines the physical and information arenas is demonstrated daily in news

media to allow visualization by the audience. This draws them into the information and affects

their opinion and passion on the topic at hand. [145] The U.S. military refers to the unseen arena as

the Information Environment (IE).

Information Environment (IE)

IE is one of the components of the battlespace where all military operations take place. It

includes, "worldwide communication networks, friendly and adversary forces and organizations'

command and control (C^2) systems, and friendly, adversary and other personnel who make

decisions and handle information, including populations." [146] This includes mass media outlets

such as CNN; an organization that beamed the immediate military activities of the 1991 Gulf War

to the World, as well as the tragic events of September 11, 2001.

Both the Gulf War and 9/11 created an immediate and emotional impact on people

everywhere. These influences and perceptions caused governments to act and respond

immediately to attacks or injustices. [147] Military operations influence adversaries to respond in

dramatic manners. This includes the reinforcement of the immediate defense of Kuwait as

coalition forces executed an envelopment from the Western Iraqi desert.[148] Emotions and visual

stimuli forced the United States government to immediately respond to attacks from Afghanistan-

sponsored terrorists that led to the invasion of that country. [149] Clearly the information battlespace

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[144] Dorothy Denning. *Information Warfare and Security*, (Reading, Massachusetts: Addison-Wesley, Longman, Inc., 1999), 101-103.

[145] Martin C. Libicki, *What is Information Warfare?* (Washington, D.C.: National Defense University, Institute for Strategic Studies, 1995), 36. Also see Leigh Armistead, *Information Operations: Warfare and the Hard Reality of Soft Power*, (Washington, D.C.: Brassey's Incorporated, 2004), 16. Somali warlord Mohammed Aided was easily outmatched in military and economic power by the U.S. By controlling the elements of information broadcast by the media, he defeated the U.S. This is the first modern example of use of IO in asymmetric warfare.

[146] JP 3-13, 1-2.

[147] Denning, 102.

[148] Waltz, 7-8.

[149] Armistead, 147-150.

coexists with the physical arena, but is not limited to the physical characteristics of battlespace.[150] Military commander's decisions may be shaped by the IE and affect his action in the physical arena. Commanders' may target IE systems and actors in order to reach and affect key adversary leaders in the physical arena.[151]

Media plays a crucial part in the IE and may be used as a strategic enabler. An enabler to communicate the objective and endstate to a global audience, execute effective psychological operations, play a major role in deception of the enemy, or supplement intelligence collection efforts.[152] It is possible to evaluate these information attacks based on motivation, resources, capabilities, and vulnerabilities. The objective is for U.S. maintenance of information superiority.[153]

Information Superiority

The U.S. Army utilizes the concept of information superiority (IS) to maintain an advantage with regard to information. IS provides commanders a doctrinal basis of Waltz's IO concept. It focuses friendly efforts on early possession and utilization of information. Simultaneously, the commander may impact the will and perception of the enemy. This may be the management of how and what information he receives to define the situation and make decisions.[154] To achieve IS, commanders may focus efforts on constantly improving the friendly operational picture and staying inside the adversary's decision making cycle.[155] It provides the commander freedom of maneuver, allows better and timely decisions and maintenance of the initiative.[156] IS consists of

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[150] *JP 1-02*, 333. Physical characteristics are defined as: "Those military characteristics of equipment that are primarily physical in nature, such as weight, shape, volume, water-proofing, and sturdiness."

[151] Robert S. Earl and Norman E. Emery, *Terrorist Approach to Information Operations*, (Monterey, California: Naval Postgraduate School, June 2003), 19.

[152] Margaret H. Belknap, "The CNN Effect: Strategic Enabler or Operational Risk?" (Carlisle Barracks: PA, *Parameters.* Autumn 2002), 110.

[153] Armistead, 201-205. Armistead argues that IO operations failed in the Kosovo campaign due to lack of political direction to create a long-term IO strategy. The U.S. ceded IS to the

[154] Department of the Army, *FM 3-13 Information Operations Doctrine, Tactics, Techniques and Procedure,*. (Washington, D.C.: GPO, 2003), 1-10 thru 1-11.

[155] Ibid, 1-11.

[156] Ibid., 1-12.

three concepts: Information Management (IM); Intelligence, Surveillance, and Reconnaissance (ISR); and Information Operations.[157] It is important to note at this point that Waltz's theory of IO closely mirrors U.S. Army IO doctrine.

The first two will not be addressed, however, the final component of establishing IS is IO. IO synthesizes the benefits of IS and IM. IO is achieved through the protection of friendly information systems and exploitation of enemy systems and information.[158] This may be achieved through the various aspects of IO.

Information Operations

The concept of IO is part of the Joint Vision 2010.[159] Armistead describes this document by stating, "IO is an attempt by the U.S. to develop a set of doctrinal approaches for its military and diplomatic forces to use and operationalize the power of information."[160] IO is less a weapon than a way of thinking about relationships between actors, events, and perceptions.

IO consists of eight core elements, six supporting elements, and two related elements.[161] For the purposes of this study, this monograph focuses on only three of these sixteen elements with the remainder being left to the reader to apply to the systems model. The three elements are: PSYOP, military deception, and counterpropaganda. PSYOP concentrates on affecting perception and inducing specific attitudes or responses in an adversary. It is used as both a means of communication and to shape expectations of U.S. forces. Military deception allows friendly

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[157] *FM 3-13*, 1-10. Army doctrine defines IS as "the operational advantage derived from the ability to collect, process and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same.

[158] Ibid., 1-10 to 1-11.

[159] Armistead, 70. Joint Vision 2010 was a 1996 Joint Chiefs of Staff white paper that formulated the direction and future strategy of U.S. military forces. Part of this future was future military dependence on IS. IO was one of the three subcomponents of IS within Joint Vision 2010.

[160] Ibid., 11.

[161] *FM 3-13*, 1-14. The eight core elements of IO are: electronic warfare, computer network operations, computer network attack, computer network defense, computer network exploitation, psychological operations, operations security, and military deception. The six supporting elements of IO are physical destruction, information assurance, physical security, counterintelligence, counterdeception, and counterpropaganda. The two related elements are public affairs and civil military operations.

forces to develop decision cycles and assume the initiative over an elusive enemy.[162] Military

deception forces predictability analysis in an adversary's attempt to understand friendly forces

which offers an opportunity to exploit insurgent vulnerabilities.[163] Counterpropaganda involves

the battle of ideas to win popular support, responses or lack thereof, can sway the population's

support or affect morale for CI forces.[164] Examples of counterpropaganda have been seen in by

the broadcasts of axis radio personalities such as Lord Haw Haw and Tokyo Rose during World

War II.[165]

Doctrine relative to IE, threats to information, IS along with doctrinal definitions and

quantification of IO are enablers. They, along with Waltz's IO model create an IO systems

framework. In the next and final section of this chapter this framework is defined.

Summary

Waltz's IO theory enables a pragmatic understanding of IO doctrine. Figure 4, on page 34,

is designed to combine both Waltz's IO concepts and doctrine into a single IO methodology. The

purpose of this concept is to portray a conceptual analysis of basic IO, highlight the important

considerations in IO planning, and assist in the development of a systems approach to IO during

COIN operations.

The impact, control and use of information is conducted in the global battlespace of the IE.

Data, knowledge, and intelligence are combined and manipulated by governments and non-

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[162] *FM 3-13*, 2-6, defines MILDEC as comprised of actions "executed to deliberately mislead adversary military decision makers as to friendly capabilities, intentions, and operation."

[163] Ibid, 2-6.

[164] Ibid., 2-18. Counterpropaganda is designed to nullify the harmful influence of adversary PSYOP on friendly forces. It "counters messages, images, rumors and other information that aim to impede or prevent friendly mission accomplishment." Counterpropaganda also consists of efforts to "preempt, prevent, and disrupt adversary efforts to disseminate propaganda, misinformation, and disinformation"

[165] The Axis Powers in World War II employed radio personalities in attempt to influence the moral or allied soldiers. Lord Haw Haw was Germany's radio personality, and Tokyo Rose was Japan's radio personality.

governments to affect feelings, opinions and responses within individuals and groups.[166] The

media, as discussed, play a major role in this battle of perceptions. It impacts the battlespace by

inputting and receiving information it portrays to the global audience. The COG within this

battlespace during an insurgency conflict is the support of a population.[167] During COIN

operations, the U.S. military uses information systems to impact the capacity, the will and the

perception of the insurgent. These operations use both direct and indirect approaches. However,

because of the political nature of the conflict, they operate directly across the support of the

population. Reams of information and intelligence are grouped and controlled through both

information management and ISR tools to help the commander decide what and when to make

decisions.

The commander's direct approach will include physical attack that directly targets insurgent

capacity to act and indirectly targets his will. IO are a vital part of this framework to attack the

insurgent indirectly. IO implements core concepts of PSYOP and MILDEC and the supporting

concept of counterpropaganda to make a substantial impact on the insurgent's will. It influences

how the insurgent views the current situation. By synchronizing both direct, physical attack and

indirect information operation's attacks, the CI eventually attrits the insurgent's physical and

cognitive capability. Likewise, the complimentary use of these nested concepts may increase the

CI circle of influence over the population, while decreasing the insurgent's influence.

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[166] Waltz, 50-53.
[167] Krepenivich, 1.
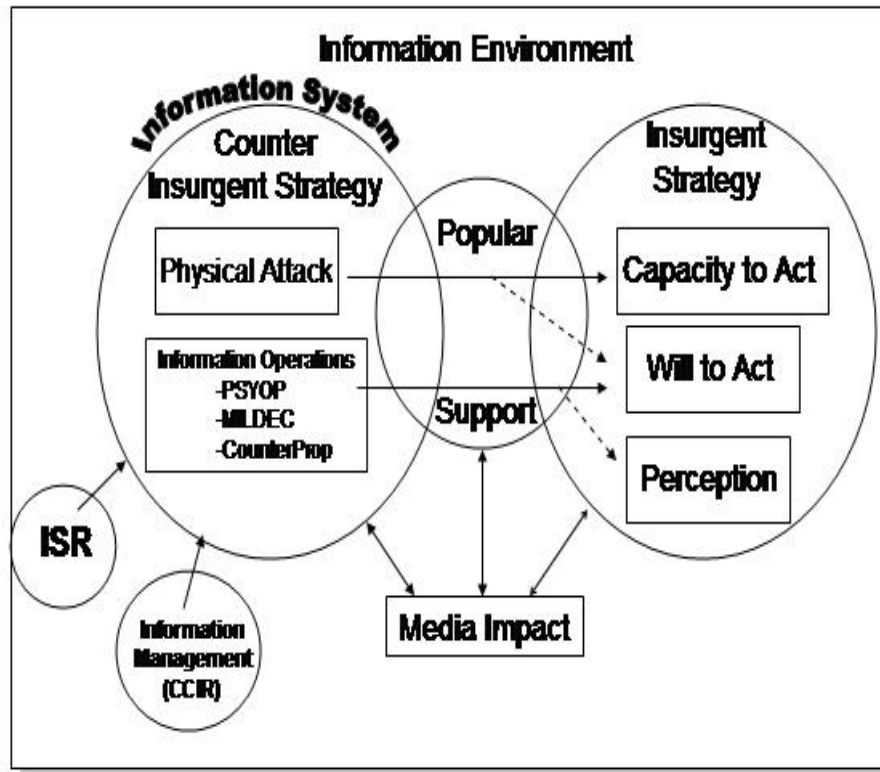
Figure 4.
Developed Information Operations Framework [168]

During the previous chapter, this paper addressed three main points. The first section introduced a fundamental understanding of IO through Waltz's concepts. The chapter next applied Waltz's IO concept to the British COIN campaign in Malaya, then introduced current joint doctrine on IO by establishing the IO environment and how to achieve IO superiority. Finally, this chapter combined both theory and doctrine to create an IO model. The next chapter will introduce systems theory to establish an understanding of the interrelationships between IO as part of COIN operations. Chapter 5 will complete the study with conclusions and recommendations.

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[168] Figure 4 is the author's developed framework of Waltz' IO concept with doctrine.

CHAPTER FOUR

Systems Theory

Chapter 4 has three main sections. The first section will introduce and apply Ludwig von Bertalanffy's systems theory.[169] The second section will apply systems theory to military operations by relating doctrinal considerations of centers of gravity and critical factors within COIN. The final section takes the COIN and IO basis developed in Chapters 2 and 3, respectively, and synthesizes them into a systems architecture. This will enable a better understanding of the complex linkages between IO and COIN. Systems theory is designed to offer a model that, while avoiding oversimplification, allows a planner the ability to organize and concentrate on the interactions between subsets of a problem.[170] This section will begin with a system's theoretical foundations formulated by Bertalanffy.

General Systems Theory

Bertalanffy attempts to find a general system that describes and connects the numerous other human systems in existence (science, social, etc.).[171] He seeks to derive a set of principles that will apply to all systems. He argues that the tendency in analysis is to reduce complexities to simple parts (reductionism). This allows for a better analysis and understanding of them. A reductionist approach ignores the important interactions that subsystems have with each other.[172] Systems theory avoids simplification of complex problems and concentrates on the interactions of subsystems to understand how they interact.[173] This is an important consideration in

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[169] Ludwig von Bertalanffy was a Hungarian scientist whose contribution was the basic rational for the interdisciplinary approach to systems.

[170] Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory,* (London, Portland, Oregon: Frank Cass Publishers, 1997) 4. Subsets are a person, place, physical thing, characteristic, or institution that is a fundamental component of junction of a system. This is similar to JWFC Pamphlet 4's definition of a node.

[171] Bertalanffy, 32.

[172] Ibid., 48-49. Subsets are analogous to subsystems in that they are a person, place, physical thing, characteristic, or institution that is a fundamental component of junction of a system.

[173] Ibid, 48.

understanding how the numerous elements of IO interact and affect the complex dynamics within COIN operations.

Defining a System

Bertalanffy describes a system as "a complex of interacting elements."[174] Three prerequisites enable the understanding of interactions of systems within a system. First, an analysis is made of the number of subsystems. Second, the character or matter of the system is determined. Third, an understanding must exist of the interrelationships between the subsystems.[175] Bertalanffy applies his systems theory to various aspects of human existence, including politics, economics and science.[176] In doing so, he divides systems into two categories. The first, open system, is defined as "a system in exchange of matter with its environment."[177] An example of an open system is military operations. The military must consider both the physical and human environment it operates when conducting operations. Within military interactions with the environment, constant changes occur due to dynamic interactions between people and the physical background.

The second, closed systems, are "systems which are considered to be isolated from their environment."[178] An example of a closed system is chemical reactions within a controlled laboratory experiment. There is no living tissue interaction and the chemist can control the elements of the environment (temperature, quantity, rate of exchange, etc.). Living systems, and thus military operations, are inherently open systems. As a result, the remainder of the discussion will be related to open systems only.

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[174] Ibid., 4-5.
[175] Ibid., 38-39.
[176] Ibid., 4-8.
[177] Ibid, 6.
[178] Ibid., 38, 149.

Systems theory includes the concept of reinforcing feedback. It generates system progress. Balancing feedback is the source of stability and resistance in a system.[179] Within a system, input is resources or energy invested to make changes, progress or effect the system.[180] This input may be natural or human induced. Output is the desired outcome or investment into the change or input of the system.[181] As situations and developments are observed, decisions are made to change the type, amount, and timing of input. This achieves a different desirable outcome and is referred to as a "feedback loop."[182] However, "negative feedback" is a natural tendency of all systems to retain or achieve stability and negate changes from input.[183] "Positive feedback" is used to inject change and growth into a system and works against negative feedback by amplifying changes in a system.[184]

The first section of this chapter introduced the concept of systems theory and the important components of open systems and feedback loops. The next subsection will provide greater clarity for the concept of feedback loops by providing application to a systems model as part of COIN. A practical example of a systems approach to IO as part of COIN is also addressed to determine how feedback loops effect subsystems of IO as part of a COIN system.

Application

Figure 5, on the next page, provides a visual explanation of a system of positive and negative feedback as part of IO in COIN. It identifies how the IO message receives input from the insurgent negative message and the CI positive message. During an insurgency, the insurgents are considered members of the population who are attempting to influence the moderates or non-insurgent members of the population. They may use IO messages and themes to support

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[179] Peter M. Senge, *The Fifth Discipline: The Art & Practice of The Learning Organization*, (New York: Doubleday, 1990), 73.

[180] Draper Kauffman, *System 1: an Introduction to Systems Thinking*, (Champlin, Minnesota: Future Systems Inc., 1980), 6.

[181] Ibid., 5-6. Kaufman using the example of learning to ride a bike. The input is decisions made in the brain to the muscles that make subtle corrections to keep the bike moving. The output is the bike steady and moving in the desired direction.

[182] Bertalanffy, 42-44.

[183] Kaufmann, 6-19.

[184] Ibid., 20.

government opposition. These message and themes may advocate resistance, possible violence, or change to the status quo or stability of the system. This is considered positive feedback because it shows an intention by an element to change the system.

The counterinsurgents, simultaneously, are sending messages through the IO system to support the government, remind the population of the government's legitimacy, and advocate stability within the system. This is considered negative feedback to the system because it is an attempt to provide stability and resist change to the system.

Positive and negative feedback are in continual tension. The insurgents, if they wish their messages to be heard by more people or more forcefully, are required to increase their operational activity and achieve greater visibility to the public. Government forces, or those supporting the government, are forced to increase stability in the system through modifications to various IO subsystems. The IO system is no longer necessary once the conflict is over and either the insurgent's positive feedback or CI negative feedback outweighs the other.
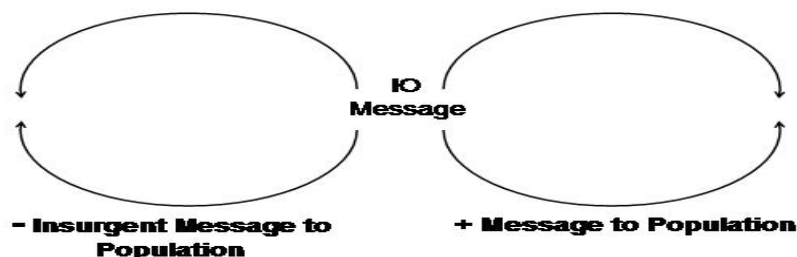
Figure 5.
IO in COIN System Feedback Loop Example [185]

Bertalanffy's system theory creates a fundamental relationship between the forces within tension in a COIN. Both the insurgent and counterinsurgent's provide input into the system that

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[185] Figure 5 is the author's visual representation of feedback loops. The figure applies the concept of feedback loops to an IO message as part of COIN operations.

assists in stabilizing it or making changes. Numerous subsystems in tension through feedback loops provide the system with an aim.[186] The concept of system aim provides the central link between IO as part of COIN. It identifies how subsystems of IO impact subsystems of COIN to affect the COG in COIN.

The introduction of basic systems theory establishes an understanding of how stability in a system is achieved. It also assists in identifying how systems can be destabilized through focused effects on their center of gravity or source of power. Important similarities exist between the systems theory and the natural tendency for systems to seek stability and the military concept of centers of gravity (COG). The next section will discuss military victory being based on identification, targeting, and destruction of disruption of a COG in a system. The COG is the center of stability that systems theory highlights. They are useful in understanding a graduated framework of IO during COIN operations.

Systems Theory Applied to Military Operations

Military operational theorist Shimon Naveh graduated Bertalanffy's general system theory by applying it directly to the operational level of war.[187] In his argument tracing the genesis of the operational level of war, Naveh states that both a qualitative and a quantitative difference exist between the operational and tactical level of war.[188] His point, that the universal phenomenon of systems is directly applicable to the military operational level of war, assists in applying systems theory to IO during COIN operations.[189]

Naveh highlights the consideration of the aim of a system.[190] As Bertalanffy described, a major characteristic of any open system is the absolute dominance of the system's aim.[191] The

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[186] Bertalanffy, 2, 76.
[187] Naveh, 4. Dr. Shimon Naveh was a former Brigade & Division Commander in the Israeli Defense Force and holds a PHD from Kings College, University of London. 1-02 defines the operational level of war as: "The level of war in which major operations and campaigns are planned, conducted, and sustained to accomplish strategic objectives within theaters or operational areas.
[188] Ibid., 6.
[189] Ibid., 4.
[190] Ibid, 5-6.
[191] Bertalanffy, 2, 76.

aim is what unites the numerous and chaotic subsystems of a system towards a specific direction. Naveh utilizes the tension between the system and subsystems within the context of aim to provide a greater understanding of interactions between components. Moreover, Naveh utilizes the concept of system aim as, "the military system's primary potential weakness, as well as its main source of strength."[192]

Naveh's concept of a system's aim is critical to application of systems theory to military operations. Naveh's concept of a system's aim is the source of strength in a military system. In Joint Doctrine, the COG is defined as: "those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength, or will to fight."[193] Thus, the COG is considered by the U.S. military as the source of strength in an enemy system such as an insurgency. By juxtaposing these two definitions, a clear relationship can be made between a system's aim and the COG. The aim of a system is the system's COG. By targeting vulnerabilities in the system's COG with elements of IO, the COG in a COIN operation can be directly affected.

Centers of Gravity in Systems

COGs are both transitory in nature and exist at every level of war. The military planner can employ either direct or indirect methods to achieve effects in COIN operations. In MOOTW operations, such as COIN, the adversary's COGs may be difficult to identify and attack directly.[194] Indirect methods, however, may assist in weakening popular support for the insurgent and isolating the insurgent from necessary resources or support.[195]

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[192] Naveh, 16.

[193] Department of Defense, *JP 5-00.1 Joint Doctrine for Campaign Planning*, (Washington, D.C.: GPO, 2002), II-7.

[194] Department of Defense, *JP 3-07 Joint Doctrine for Military Operations Other than War*, (Washington D.C., 1995), I-8.

[195] *JP 5-00.1*, II-13 to II -14.

Before identifying the COG, planners should understand the critical factors that impact the COG to understand it can be targeted.[196] The first critical factor is Critical Capabilities (CC) that enable the adversary's COG to function and are crucial to the accomplishment of the adversary's objectives.[197] In order for CC's to be fully operational, essential conditions, resources and means, referred to as Crucial Requirements (CR), must be identified.[198] The friendly forces' ability to isolate and target CRs in order to directly neutralize, interdict, or influence the COG are referred to as Critical Vulnerabilities (CV). The CVs are the litmus test for planners to determine the viability of the proposed COG and ensure it is within operational reach.[199]

Affecting the COG

As identified in chapter 2, the center of gravity in COIN is the will of the people. From the British experience in Malaya, counter-insurgent theorist G. Bulloch states, "An insurgency is an attempt to force political change and thus it follows logically that the centre of gravity can only be reached by political action."[200] Consequently, the subsystems that support a population can be included as part of a system to understand what makes up the "hearts and minds" of the masses.[201]

Essentially, the COIN subsystems are that which provide the basic elements of life support for a population.[202] Six subsystems form the CCs to affect the COG in a COIN operation.[203] The

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[196] Ibid, II-7.

[197] Department of Defense, *JP 5-00.1 Joint Doctrine for Campaign Planning*, (Washington, D.C.: GPO, 2002), II-7. CC is defined as: "those adversary capabilities that are considered crucial enablers for the adversary's COG to function as such, are essential to the accomplishment of the adversary's assumed objectives."

[198] Ibid, II-7. CRs are defined as: "those essential conditions, resources, and means for a critical capability to be fully operation."

[199] Ibid, II-7. CVs are defined as: "those aspects or components of the adversary's critical capabilities (or components thereof), which are deficient, or vulnerable to neutralization, interdiction, or attack in a manner achieving decisive or significant results, disproportionate to the military resources applied."

[200] Gavin Bulloch, "The Application of Military Doctrine to Counterinsurgency (COIN) Operations: a British Perspective." *Studies in Conflict and Terrorism*. (Vol. 19 No. 3, JUL-SEP 1996), 247-259..

[201] Gavin Bulloch, Military Doctrine and Counterinsurgency: A British Perspective, 4. 4.

[202] The six subsystems to control the COG of support of the people are those critical components that the population depends on for daily existence.

[203] The author developed the six subsystems from COL Sutherland's monograph on systems application to military operations in an urban environment.

political subsystem includes the legitimate leaders that represent the interests or support of the population and is derived from Bullocks analysis. The security subsystem provides a safe environment for the populace and includes the military and police forces. Providing security to the populace and convincing them that CI forces will prevail is how to win minds in hearts and minds.[204] The social subsystem is how the population is divided on ethnic, family or economic divisions. Social considerations provide the fabric that binds groups within the society together. The ideological subsystem comprises the fundamental values of the population and the future they strive to achieve. Ideology is the sum of the population's norms, values, and beliefs. The economic subsystem provides basis life support and land ownership. Economic considerations ensure the population's fundamental needs in the way of food, shelter, water, and access to recourses are met. Finally, the cultural subsystem includes both religious and educational considerations. The cultural subsystem is closely related to ideology, but with a greater emphasis on how future generations are fostered and developed.

These six CCs have CR subsets such as leaders, land ownership, religion, and hierarchy that must be met for the CC to be protected by the insurgent and thus won over from the CI. Though these CR are ubiquitous in every society, they can not be directly targeted by military means alone. They are only turned into long range CVs by affecting the perception, attitudes, and beliefs of the population. This can only be achieved through application of IO tenets; specifically the four MOEs previously mentioned. Figure 6 provides a graphic portrayal of the six subsystems within the COG/system that an insurgent must protect and a counterinsurgent must target.

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[204] Krepinevich, 1.
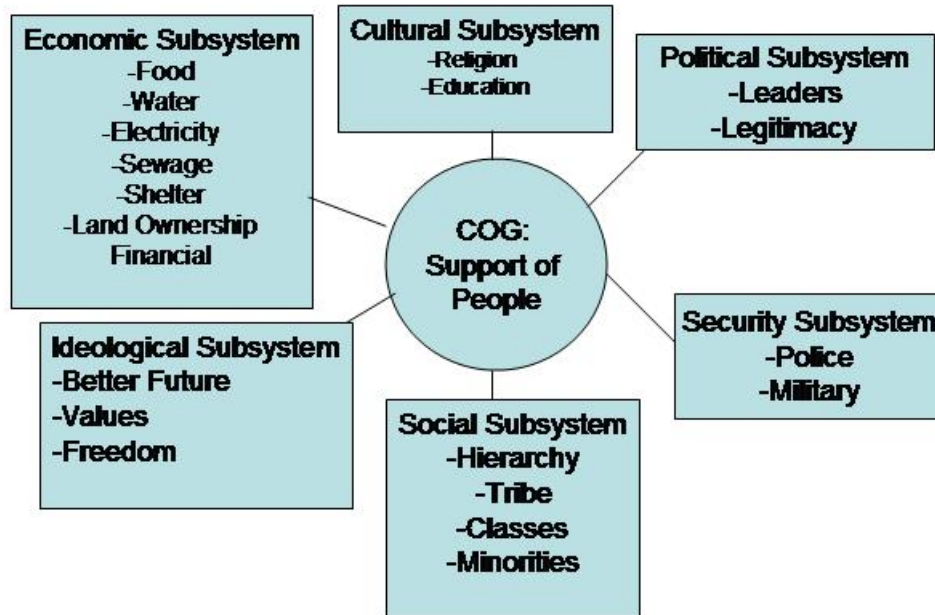
Figure 6.
Insurgent Center of Gravity and Critical Capabilities
System and Subsystems [205]

Application

Using Bertalanffy's characteristics of a system it is possible to analyze a system. Thompson argues that security of the population is one of the most crucial achievements in winning a COIN.[206] As shown in figure 6, security is a subsystem of the popular support COG in COIN. The population will tend to support the side that can shield them from violence. Both the police and military forces comprise the critical requirements to secure that CC. Historical analysis and doctrine show in previous chapters that the counterinsurgent should determine the goals and strategies of the insurgent. In this case, it may be to convince any native population members that joining government security forces places them and their families in danger. After orienting on the enemy objectives, the CI force should understand the dynamics of the political and human

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[205] Figure 6 was a concept developed from the urban systems framework developed by COL David W. Sutherland. David W. Sutherland, *Systems Approach to Urban Operations*, (Fort Leavenworth, Kansas: School of Advanced Military Studies, 2003), 35.

[206] Thompson, 42.

environment. In order to observe the terrain they are operating in, the CI should appreciate the

lines of information the insurgents are operating under. These may include media, posters,

graffiti or word of mouth and composes a critical requirement in targeting the security forces that

protect the populace. Next the CI must decide if CVs exist, how to target those CVs through IO,

and coordinate IO with other elements of national power. The CI then acts and focuses his efforts

on affecting the perception of the population. This includes counter-propaganda campaigns that

negate whatever means the insurgent is using to inform the populace. CI forces employ elements

of EW or counterpropaganda to limit insurgent access to mass media outlets. Finally, CI forces

must deceive insurgents as to operational activities that target insurgent forces or their

vulnerabilities.

   With the COG and subsystems in an insurgency identified, the next and final section will

present the systems approach to IO in COIN.

Systems Approach to IO in COIN

   Chapter 2 and 3 provides the foundation to identify how IO influences COIN operations

using a systems approach methodology. This section will combine these three complex concepts

into a five step framework (figure 7) that offers military planners a method for successfully

employing IO as part of COIN operations.   The focus of this systems model is identification of

effect paths that utilize IO to target the COIN system's aim. Influencing the system's aim

impacts the center of gravity in COIN operations. The six subsystems previously discussed in

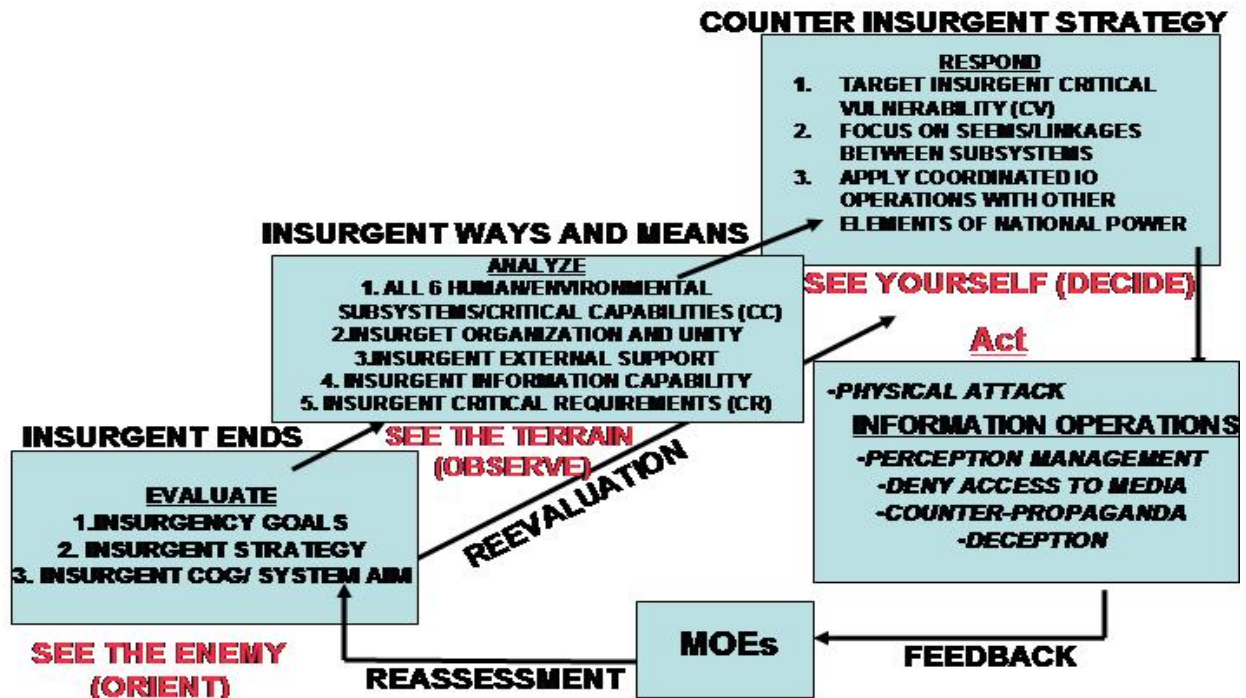figure 6 are utilized as ways to impact the COG in COIN operations.

FIGURE 7.
Information Operations in Counterinsurgency Framework[207]

Step 1 – Evaluating the Insurgent's Goals

As indicated in figure 7, the first step in the methodology is to evaluate the insurgency's

goals. O'Neill's methodology demonstrates that the insurgent's goals may include the return to

traditional ways, such as the Iranian revolution or egalitarianism as utilized in the Malayan

Emergency.[208] Goals may be transitory or change through the conflict.[209] Reassessment of the

CI strategy ensures planners adjust IO as necessary to continue targeting the system's aim. The

final task in evaluating insurgent ends is the most important. The military planner should

understand the nature of the conflict by identifying the insurgent's COG, which is analogous to

the system's aim. This is done through a thorough evaluation of the six subsystems within figure

6. For example, an egalitarian emergency such as the Malayan Emergency may require greater

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[207] Figure 7 is the author's synthesis of the Figure 1 COIN framework, the figure 4 developed IO framework, and the figure 6 insurgent COG and CC system and subsystems framework. It offers operational planners a system of systems approach to IO as part of COIN operations.

[208] O'Neill, 21.

[209] Ibid, 12.

ideological input to support and protect the COG (support of the people). An egalitarian insurgency requires less cultural sustainment in the form of religion or education to provide the necessary support the insurgents requires. However, a traditional insurgency, such as the 1979 Iranian revolution, requires greater cultural strength to maintain popular support. A return to religious fundamentalism is the nature of these insurgencies.[210] These considerations are important to the planner because they identify CRs that may contain CVs that IO can exploit. In the case of Malaya, IO efforts prove to the populace that a better future exists with the government than with the MCP. Orienting IO efforts towards the ideological subsystem in an Iranian traditional insurgency would be futile. The population supporting the insurgency does not desire a brighter future, but a return to religious roots.[211] Thus, affecting the aim of the system through CVs or IO effects can result in isolating the insurgency from its source of strength. Step 1 of the IO as part of a COIN model ensures the military planner orients on the true nature of the conflict and the enemy's endstate. Step 2 of the framework further explores the six subsystems within figure 6 in order to recognize the insurgent's ways and means.

Step 2 – Subsystem Analysis

Step 2 ensures the analysis of all that all 6 subsystems that support the aim of the insurgency. This step facilitates a thorough understanding of the insurgent's CCs needed to achieve their endstate. The first task in step 2 is analyzing how political, security, social, ideological, economic, and cultural subsystems impact the COG. Planners consider the interaction of these subsystems as they support the COG. The nature of the conflict affects the degree to which each subsystem influences the COG. As previously indicated, a traditionalist insurgency depends more on cultural than ideological subsystems.

The next task requires intelligence efforts to clarify the insurgent organization. Organizations may depend on loose, cell like structures distributed throughout the battlespace. They may also

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[210] O'Neill, 18, 93-94. The Iranian revolution is a contemporary example of a traditionalist based insurgency in which strategic planners failed to understand the nature of the conflict.
[211] Ibid, 18.

be heterogeneous organizations made up of elements with different reasons for conducting an insurgency. The ties that bind the organization together provide possible fault lines creating CVs.

The third task is understanding what external support the insurgency requires in order to exist. Support may include material or moral assistance to maintain the insurgent cause.[212] Support lines that can be severed create an exploitable CV for the CI force. IO can be utilized to threaten retaliation on national or international sources of support to increase insurgent isolation.

The fourth task of step 2 is to appreciate how the insurgent receives or requires information. Again, intelligence is crucial to better appreciate the insurgent ways and means to achieving his endstate. Insurgent information requirements can be severed through targeting, questioned through deception, or negated through counter-propaganda.

The final task of step 2 is to understand subsystems, organizational architecture, external support, and information requirements qualify as CRs that ensure the insurgent is successful. These CRs will be further evaluated in step 3 for qualification as vulnerabilities that directly affect the system's aim.

Step 3 – Quantification of Vulnerabilities

Step 3 of this framework allows the planner to understand the military's ability to affect the insurgent's system through IO. The need exists to evaluate previously discussed CRs for potential CVs. The six subsystems within figure 6 are reevaluated to understand linkages between subsystems that can be influenced through IO efforts. If the insurgency requires passive support of the police (part of the security subsystem) to operate in specific areas, IO efforts can exploit the linkage between security and political subsystems. An option is the use of the media to target government leaders and protect their legitimate claim to power by forcing the police to action against the insurgents. This step emphasizes the importance of ensuring IO compliments the use usage of other elements of national power. IO efforts consider current economic sanctions or diplomatic efforts to influence events in the host nation. The use of the elements of

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[212] O'Neill, 114-117.

national powers are enablers that facilitate the identification of core and supporting tasks of IO that should be employed to best counter the insurgent's aim.

Step 4 – The Tools of IO

Step 4 of the framework is understanding what tools of IO to employ based on the previously evaluated insurgent's ends, ways, and means. Waltz's IO concept from figure 2 (chapter 3) assists IO planners in appreciating when to recommend physical attack and when to recommend core or supporting IO elements. The most important consideration of this step is to determine what options to eliminate and leave open to the insurgent. Physical attack provides immediate feedback to the insurgent of the CI operations. IO may confuse or force the insurgent to act contrary to insurgent interests due to misinformation, lack of situational awareness, or shaping of perception. As previously discussed in chapter 3, various tools of IO exist to achieve specific effects on opponents. Combined in complimentary ways, that target specific subsystem CVs, these IO tasks allow the military planner to indirectly and subtly impact the aim of the insurgent system. IO tasks are of short term use if their impact is not routinely reassessed and measured for effectiveness.

Step 5 – Development of MOEs

The final step of the five step framework is the development of MOEs that capture success or failure of IO efforts as part of COIN operations. Planners develop MOEs based on both subjective and objective considerations. Subjective MOEs include surveys of local residents in order to determine what the majority opinion or perception is. The results of this method receives unbiased analysis. A technique is to contract a professional polling organization. This organization can better research and factor demographic differences, as well as apply detailed statistical analysis. Both international and national media can provide input to the feedback loop by providing observations from local CI efforts. Subjective feedback may be received by Civil Affairs (CA) teams operating in an area. Their impressions from daily interactions with the local population assists IO planners in ensuring subsystems are nested and linked. CA teams provide a

method of objective feedback through the charting of infrastructure repair progress. CA team reports may facilitate pattern analysis to determine the best location of future CA operations and reduce support for insurgent activities.

Several examples of subjective and objective MOEs that answer the monograph's second question: what IO MOEs exist to demonstrate the achievement of success in COIN? First, how many attacks are committed by women? This indicates whether the insurgency is growing or declining. Second, force households to submit ballots informing on insurgent supporters. The incentive is to lift marshal law restrictions on local area. Third, employ pattern analysis to determine the insurgent ability to utilize cellular phone traffic to coordinate operations. Fourth, track the number of insurgents who turn themselves in with leaflets in hand and determine why those leaflets were effective. Finally, after a demographic statistical breakout, closely monitor the youth to see how many actively attend school and how many incidents occur with youths involved is an essential indicator to CI progress.

CHAPTER FIVE

Recommendations, and Conclusions

Chapter 5 summarizes this study with three specific recommendations and three general conclusions.

Recommendations

The first and most important recommendation is that military planners study and adopt a systems methodology approach to IO as part of COIN operations. *FM 3-07.22* provides military planners with the necessary doctrinal means to understand the historical background and nature of insurgencies. It also provides important considerations for COIN strategies and requirements. *JP 3-13* and *FM 3-13* both describe the fundamental considerations and elements within IO. The

military planner is left to understand how one concept interacts with the other in order to achieve successful effects.

A systems approach that emphasizes the interaction of subsystems with the focus on influencing the system's aim and impacts the COG is useful in understanding the complex relationships between IO and COIN. The next recommendations focuses on how the military planner receives his understanding of the insurgent enemy and battlespace.

The second recommendation is for IO planners to understand the capabilities, limitations, and use of intelligence during COIN operations. Intelligence is crucial to successful IO and COIN operations. Without accurate and timely intelligence, the IO planner makes uninformed decisions that may be contrary to the system effects and aims targeted. As COIN is a largely political conflict with the support of the people as the COG, human intelligence may provide the greatest single sources of information needed to support a systems framework.

The Malayan Emergency emphasizes the importance of human intelligence and conversion of insurgents to support the CI and host nation cause.

If military intelligence over emphasizes technology to track and understand conventional enemy forces, it will result in challenges and frictions in a COIN environment. The IO planner should appreciate that intelligence reports be considered and evaluated for the degree of impact on future COIN operations. Human intelligence sources assist in pattern analysis of what IO tools are achieving success and what tools are deficient. Faulty intelligence leads to a misunderstanding of the insurgent's ends, ways, and means. It also leads to inaccurate input to feedback and MOEs. Overall, failure to emplace efficient and effective intelligence operations will lead to failure regardless of what systems approach IO planners apply to COIN operations.

The final recommendation involves the disproportionate impact media has on IO in relevance to other IO inputs. IO operations should maintain the initiative when it comes to media involvement. As part of a systems approach, IO should holistically coordinate and provide the media a source of information. This minimizes their finding it on their own. The relationship

with the media should be based on absolute truth when reporting CI and confirmed insurgent activities. The media should not be provided an opportunity to suggest that CI forces are being less than honest about campaign progress. CI forces also control the tempo of media operations to counter the insurgent propaganda. Use of imbeds and tracking how news agencies and individual reporters relay and portray information allows CI forces to determine which media will be given priority in future insight to current operations. The media subsystem of IO as part of COIN operations should be closely connected to balance both the progress and positive actions taken to win popular support, provide security, and create legitimate government. The media should be closely tied to the perception management system and provided routine, accurate, and timely information to avoid reporters resorting to focusing on reports of U.S. and civilian casualties.

Conclusions

The first conclusion answers the monograph's primary thesis: IO does significantly contribute to success in COIN campaigns when utilizing a systems analysis model to understand the complex interactions of the two concepts. A systems approach emphasizes positive and negative feedback loops. There is constant reassessment of IO effectiveness and the avoiding of linear thinking to contribute to the overall success of the campaign. The IO system within COIN cannot be isolated and analyzed into separate divisions or subsystems. The quantity, quality, and subject matter of each subsystem form the holistic system. That system possesses unified, synergistic, and constitutive characteristics which cannot be described in isolated parts. These effects may include prompting insurgents to create new messages that require access to media outlets. This impacts the IO plan by denying insurgent access to media outlets and affects counterpropaganda planning and execution. The insurgents will respond to U.S. counterpropaganda with their own themes and messages, which may cause a response in the deception subsystem. This complexity of interacting elements creates certain characteristics of the system as a whole that can only be

appreciated by understanding the relationship between the system and its components. The only way to plan a system approach is with quantifiable and accurate planning that accounts for the dynamics of human perception, impression, and will. This includes breaking down IO objectives into key tasks that target insurgent critical vulnerabilities directly tied to the campaign center of gravity. The system of systems technique, of which four core elements were discussed in this monograph, creates a methodology for IO planners to determine what available assets should be applied to achieve desirable affects in specific systems of CI operations. The overall effect of a systems approach to IO planning in COIN is a nested and complimentary system that directly impacts the insurgent COG.

A second conclusion is that IO core capabilities linked to the subsystems of perception management, denial of insurgent access to information outlets, counterpropaganda, and military deception operations grouped should receive both subjective and objective feedback. These four subsystems should also be closely tied to intelligence assessments on the insurgency. This assists CI forces in demonstrating effectiveness in IO as part of COIN operations. These IO capabilities require careful use of both technical and human aspects of IO. The first challenge in creating valid capabilities is overcoming cultural barriers in both translation and interpretation. Effective employment of screened or vetted interpreters is useful in overcoming cultural challenges. Use of insurgents that have surrendered and agreed to cooperate with CI forces increases opportunities to understand insurgent goals and reaching the population. For operations in *OIF*, this does not presuppose that convincing religious fundamentalist insurgents to cooperate with CI forces is an easy task. Coercing cooperation from religious insurgents requires both time and methods of appealing to their tribal opposition covertly. Operations involving use of former insurgents to spread dissent among the opposition is also closely linked to the military deception subsystem of IO.

The final conclusion is that IO pervades every level of war, type of warfare, and battlefield operating system. It is perhaps most difficult to deal with in a conflict where military operations

play a subordinate roll to political considerations. However, IO is a critical system to employ if U.S. forces hope to win the minds of the population's "hearts and minds." The U.S. Army's choice to employ effective IO requires adaptive leadership skills of senior commanders and staff to overcome historical-solely military solutions. This is part of attempting to quickly relearn and employ an old concept in an unfamiliar form of conflict that will challenge the nation for years to come.

BIBLIOGRAPHY

Books

Alberts, David S., John J. Gartska, and Frederick P. Stein. *Network Centric Warfare: Developing and Leveraging Information Superiority*. 2d revised ed. Washington, D.C.: DOD C4ISR Cooperative Research Program, 1999.

Alberts, David S., John J. Gartska, Richard E. Hayes and David A. Signori. *Understanding Information Age Warfare*. revised ed. Washington, D.C.: DOD C4ISR Cooperative Research Program, 2001.

Alberts, David S. *Information Age Transformation: Getting to a 21st Century Military*.Washington, D.C.: DOD Command and Control Research Program, 2002.

Armistead, Leigh. Information Operations: Warfare and the Hard Reality of Soft Power. Washington, D.C.: Brassey's Incorporated, 2004.

Bertalanffy, Ludwig von. *General Systems Theory*. New York, NY; George Brasiller, 1969.

Boot, Max. *The Savage Wars of Peace.* New York: Perseus Books, 2002.

Bunker, Robert J. *Information Operations and the Conduct of Land Warfare*. Arlington, VA: Institute of Land Warfare, Association of the United States Army, 1998

Clausewitz, Carl von, *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.

Crane, Conrad C. *Avoiding Vietnam: The U.S. Army's Response to Defeat in Southeast Asia.* Carlisle, Pennsylvania: Strategic Studies Institute, September 2002, 18.

Van Creveld, Martin. *The Transformation of War*. New York: The Free Press, 1991.

Denning, Dorothy. *Information Warfare and Security*. Reading, Massachusetts: Addison-Wesley, Longman, Inc., 1999.

De McLaurin, Rongal, Carl F. Rosenthal, and Sarah A. Skillings. *The Art and Science of Psychological Operations: Case Studies of Military Application, Volume Two.* American Institute for Research: Washington D.C., 1976.

Dorner, Dietrich. *The Logic of Failure: Recognizing and Avoiding Error in Complex Situations.* Translated by Rita and Robert Kimber. New York: Metropolitan Books, 1996.

Fall, Bernard. *Street without Joy*. Harrisburg, Pennsylvania: Stackpole Books, 1963.

Galula, David. *Counter-Insurgency Warfare, Theory and Practice*. New York: Frederick A. Praeger. 1964.

Handel, Michael I. *Master's of War: Classic Strategic Thought*. London, Portland, Oregon, Frank Cass Publishers, 2001.

Huntington, Samuel. *The Clash of Civilizations.* New York: Simon and Schuster, 1996.

Kauffman, Draper. *System 1: an Introduction to Systems Thinking*. Champlin, Minnesota: Future Systems Inc., 1980.

Lansdale, Edward G. In the Midst of Wars: An American's Mission to Southeast Asia. New York: Harper and Row, 1972.

Libicki, Martin C. *What is Information Warfare?* Washington, D.C.: National Defense University, Institute for Strategic Studies, 1995.

Mao Tse Tung. *Selected Military Writings of Mao Tse-Tung.* Peking: Foreign Language Press, 1966.

Metz, Steven. "*Armed Conflict in the 21st Century: The Information Revolution and Post-Modern Warfare.*" Carlisle, Pennsylvania: Strategic Studies Institute, U.S. Army War College, April 2000.

Mockaitis, Thomas R. *British Counterinsurgency in the Post-imperial Era.* Manchester, New York: Manchester University Press; 1995.

_____. *The British Experience in Counterinsurgency, 1919-1960.* 1988.

Nagl, John A. *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife.* Westport, Connecticut: Praeger, 2002.

Naveh, Shimon. *In Pursuit of Military Excellence: The Evolution of Operational Theory.* London, Portland, Oregon: Frank Cass Publishers, 1997.

O'Neill, Bard E. *Insurgency and Terrorism: Inside Modern Revolutionary Warfare.* Dulles, Virginia: Brassey's Incorporated, 1990.

Paget, Julian, *Counter-Insurgency Operations.* New York: Walker and Company, 1967.

Sarkesian, Sam C. *Unconventional Conflicts in a New Security Era: Lessons from Malaya and Vietnam.* Westport, Connecticut: Greenwood Press, 1993.

Schwartau, Winn. *Information Warfare.* New York, New York: Thunder Mouth's Press, 1994.

Senge, Peter M. *The Fifth Discipline: The Art & Practice of The Learning Organization.* New York: Doubleday, 1990.

Sun Tzu. *The Art of War.* Translated by Samuel B. Griffith; New York: Oxford University Press.

Thompson, Robert F. Defeating Communist Insurgency: Experiences from Malaya and Vietnam. London: Chatto & Windus, 1972.

Townshend, Charles. *Britain's Civil Wars: Counterinsurgency in the 20th Century.* London, Boston: Faber and Faber; 1986.

Trinquier, Roger. *Modern Warfare: A French View of Counterinsurgency.* New York: Praeger, 1964.

Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations.* 6th ed. Chicago: University of Chicago Press, 1996.

Waltz, Edward. *Information Warfare: Principles and Operations.* Norwood, Massachusetts: Artech House.

Weigley, Russell F. *The American Way of War: A History of United States Military Strategy and Policy.* Bloomington, IN: Indiana University Press, 1973.

Internet Sources

Center for Army Lessons Learned. *OIF CAAT II Initial Impressions Report.* Newsletter 04-13. May 2004. retrieved from web 03 NOV 2004: http://www.globalsecurity.org/military/library/report/call/call_04-13_chap01-d.htm

DeAtkine, Norvell B. "Observations and Impressions from Iraq." *American Diplomacy*. Chapel Hill: North Carolina, March 21, 2004. retrieved from web 28 OCT 2004. http://www.unc.edu/depts/diplomat/archives_roll/2004_01-03/deatkine_iraq.htm.

Hollis, Roy. "Information Operations Observations, TTP, and Lessons Learned." Center for Army Lessons Learned. November 2001. <http://call.army.mil/products/trngqtr/tq3-02/hollis.htm>.

Krepinevich, Andrew. "The War in Iraq: The Nature of Insurgency Warfare." CSBA. 02 June, 2004.http://www.csbaonline.org/4Publications/Archive/B.20040602.NatofInsurge/B.20040602.NatofInsurge.pdf.

Journal Articles

Belknap, Margaret H. "The CNN Effect: Strategic Enabler or Operational Risk?" *Parameters*. Autumn 2002.

Bierly, Jerome F. and Timothy W. Pleasant. "Malaya – a Case Study." *Marine Corps Gazette*. Vol 74 no 7 (JUL 1990): 46-49.

Bulloch, G. "The Application of Military Doctrine to Counterinsurgency (COIN) Operations: a British Perspective." *Studies in Conflict and Terrorism*. Vol 19 no 3 (JUL-SEP 1996) pp 247-259.

Bulloch, Gavin. "Military Doctrine and Counterinsurgency: A British Perspective." *Parameters*. Summer 1996.

Challis, Daniel S. "Counterinsurgency Success in Malaya." *Military Review*. 2 FEB 1997. pp 56-69.

Emery, Norman. "Information Operations in Iraq." *Military Review*. May/June 2004, p. 11.

Gordon, John and Jerry Sullinger. "The Army's Dilemma," *Parameters*. Summer 2004, pp. 33-45.

Harmon, Christopher C. "Illustrations of 'learning' in Counterinsurgency." *Comparative Strategy*. JAN-MAR 1992; pp 29-48.

Jaffe, Greg. "For Guidance in Iraq, Marines Rediscover a 1940s Manual; Small-War Secrets Include: Tips on Nation Building and the Care of Pack Mules." *Wall Street Journal*. April 8,2004l pp A1.

Laos, Nicolas K. "Information Warfare and Low Intensity Operations." *Perceptions*. 02 AUG 1999. pp 174-195.

Manwaring, Max G. and Court Prisk, "A Strategic View of Insurgencies: Insights from El Salvador." *Small Wars and Insurgencies*. Vol. 4. No. 1, Spring/Summer 1993, 60.

Mockaitis, Thomas R. "A New Era in Counterinsurgency." *RUSI*. Spring 1991. pp 73-78.

Schneider: James J. "*Black Lights: Chaos, Complexity and the Promise of Information Warfare*." Joint Forces Quarterly, (Spring 1997): 21-28

Tomes, Robert R. "Relearning Counterinsurgency Warfare." *Parameters*. Spring 2004. pp 16-28.

Thesis/Monograph

Abb, Madelfia A. "Bringing About a Military Learning Organization: the U.S. Army in the Philippine War, 1899-1902." Fort Leavenworth, Kansas: School of Advanced Military Studies.

Burton, Gerald V. "Principles of Information Operations: A Recommended Addition to U.S. Army Doctrine." Fort Leavenworth, Kansas: School of Advanced Military Studies, 2003.

Earl, Robert S. and Norman E. Emery. Terrorist Approach to Information Operations. Monterey, California: Naval Postgraduate School, June 2003.

Schneider, James J. "How War Works: The Origins, Nature and Purpose of Military Theory,2001." Unpublished paper. School of Advanced Military Studies, Ft. Leavenworth, KS.

Sparling, Bryan N. "Information Theory as a Foundation for Military Operations in the 21st Century." Fort Leavenworth, Kansas: School of Advanced Military Studies, 2002.

Sutherland, David W. "Systems Approach to Urban Operations." Fort Leavenworth, Kansas: School of Advanced Military Studies, 2003.

Waghelstein, John D. "Military-to-Military Contacts: Personal Observations – the El Salvador Case." Unpublished paper. Fall 2002.

Government Publications

Department of the Army. *FM 3-0 Operations.* Washington, D.C.: GPO, 2001.

Department of the Army, *FMI 3.07.22 COIN Operations*. Washington, D.C.: GPO, 2004.

Department of the Army. *FM 3-13 Information Operations Doctrine, Tactics, Techniques and Procedures.* Washington, D.C.: GPO, 2003.

Department of the Army. *FM 100-6 Information Operations.* Washington, D.C.: GPO, 1996.

Department of Defense. *IO Roadmap*. Washington, D.C. 30 OCT 2003.

Department of Defense, *JP 1-02 DOD Dictionary of Military and Associated Terms* Washington, D.C., 12 April 2001.

Department of Defense, *JP 3-07 Joint Doctrine for Military Operations Other than War*. Washington D.C., 1995.

Department of Defense, *JP 3.07.1 Joint Tactics, Techniques and Procedures for Foreign Internal Defense (FID).* Washington D.C., 16 June 1996.

Department of Defense. *JP 3-13 Joint Doctrine for Information Operations.* Washington, D.C.: GPO, 1998.

Department of Defense, *JP 5-00.1 Joint Doctrine for Campaign Planning*. Washington, D.C.: GPO, 2002.

Department of Defense. United States Joint Forces Command. *Pamphlet 4: Doctrinal Implications of Operational Net Assessment.* Suffolk, Virginia: Joint Warfighting Center, 24 February 2004.

Department of the Navy. *Small Wars Manual*. Washington D.C., United States Government Printing Office, 1940.

Derry, A.F. *Emergency in Malaya: The Psychological Dimension*. Latimer, England: National Defence College, 1982.

O'Reilly, Charles. Imperial War Museum (IWM) Department of Sound Records (DSR) 10121/3, 1988.

Training Doctrine Retrieval Centre. *British Army Doctrine-11291, Staff College Notes onCounterinsurgency*. Camberly, United Kingdom; British Army Staff College, 1994.